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Bio-Physiological Considerations in the Treatment of Sub-Capital Fractures of the Hip*

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THE treatment of sub-capital fractures of the neck of the femur is a specially difficult problem, differing from that of all other fractures. It is the most unfavorable of all fractures as to union, so unfavorable that the title of an oration on this fracture before a recent Congress of The American College of Surgeons was designated "the unsolved fracture."

Sir Astley Cooper went on record 100 years ago with the statement that he had never seen a fracture of the neck of the femur that had united; nevertheless, the profession in general has not, as yet, advanced materially in its concept of the fundamental requirements in the treatment of these fractures or the physiobiologic considerations involved.

The British Fracture Commission has reported 22 per cent union in all types of treatment of central femoral neck fractures. In 1929 and 1930, a Committee of the American Orthopedic Association studied this problem and found from a general survey throughout the country that certain clinics had obtained unions as low as 30 per cent.

Two hospitals in New York have recently announced statistics showing 38 per cent union, while a third hospital reported 48 per cent. A consideration of the greatest importance is that all three hospitals reported 20 per cent aseptic necrosis of the femoral head in those cases which came to union. The condition stimulated osteoarthritis with flattening

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and mushrooming, accompanied by symptoms so acute that in most cases arthrodesis of the joint was necessitated. When union is effected, a mechanical means alone being employed, the question is still unsettled as to whether the blood supply to the capital fragment is sufficient to avoid aseptic necrosis.

It would be difficult today to catalogue the numerous types of treatment recommended for fractures of the hip. From Sir Astley Cooper's time to the present, all of the many varieties of treatment have been based upon mechanical replacement and fixation alone, without consideration for the bio-physiologic requirements of the problem. These methods of treatment may be classified under two headings: (1) the conservative, or non-operative, with no internal fixative agent, and (2) the operative, with some internal fixation. In the former classification, one may mention the names of Whitman, Leadbetter, Maxwell Ruth and many others. The latter group can be enumerated according to the different applications of internal fixation or metal gadgets. One of these fixative agents recently reported by Morrison is extremely clever and ingenious. It consists of a bolt with an internal mechanism which, after insertion through a drill hole through the trochanter and neck into the head of the femur, allows the distal or internal end of the bolt to be opened like a small umbrella inside the capital fragments, thus insuring firm fixation into this fragment. The fragments are then firmly approximated by setting up the screw on the bolt at its proximal end. This meets the mechanical, but not the bio-physiologic requirements of the treatment.

It has not been recognized that a subcapital fracture of the hip is a different problem from that of other fractures and in failing to recognize this, it has been assumed that mere reductions and maintenance of the fragments in position were all that was required. I have contended[1] that this was not all, but that there were other factors entering into this particular fracture problem. The capsule of the hip joint is attached to the neck of the femur obliquely and close to the base of the neck; therefore, a subcapital or central fracture of the neck of the femur is completely intraarticular. If it is completely intraarticular, then all possible sources of blood supply coming to the head fragment from the trochanter region of the femur or distal to the joint are cut off by a sub-capital fracture; the only blood supply is through the ligamentum teres. The question then arises as to whether the ligamentum teres, when not torn, does in all instances provide an adequate source of blood supply or tissue continuity for a circulation in which to develop. Wolcott attempted to evaluate this by injecting the blood vessels of the ligamentum teres with mercury in cadaver specimens: In 15 per cent of the cases, he could not find blood vessels of sufficient size to allow the mercury to flow through them into the head or neck of the femur, and Henderson, Chandler and others, from similar research, claim as high as 20 per cent. The next consideration is the possibility of the ligamentum teres or its blood vessels being destroyed by the trauma producing the primary fracture, and in this regard, I wish to record some very interesting observations.

During the past twenty-five years, I have performed 447 arthroplasties, either upon cases of aseptic necrosis of the femoral head, using fascia or vitallium cups, or for non-union with marked absorption of the femoral head and have in such cases removed the head of the femur as an item in my reconstruction operation. Some of these were during the period of my service in World War I. A careful check was always made by myself and my associates of the condi-

tion of the ligamentum teres at the time of the operation and it was found that in 444 of these cases, the continuity of the ligamentum teres had been previously destroyed and also that there was not the slightest evidence of bleeding at the cotyloid notch, where the ligamentum teres is inserted into the acetabulum. In over 70 per cent of the cases, all ligamentum teres tissue appeared to have been evulsed from the cotyloid notch. In the remaining cases tabs of ligamentous tissue were found attached to the cotyloid notch of the acetabulum and fovea of the head of the femur or both. In three cases, the ligamentum teres was found intact and it was found necessary in all of these to sever the ligament before the femoral head could be removed. Free bleeding was observed at the cut end of its proximal portion. In one of these the fracture was found to be at the center of the neck and due to a rifle bullet which was discovered at operation, between the ununited fragments. The thought occurs to one in this case that inasmuch as the neck of the femur was severed by a bullet, it may have produced a shock sufficient in intensity at the time of severing to result in muscle flaccidity, and because of this, muscle spasm incident to the usual fracture did not occur and force the distal fragment of the femur upward, thus rotating the head in the acetabulum upward on the outside and the fovea of the head downward on the inside, to such a degree as to tear or evulse the ligamentum teres. This assumption is strengthened by the fact that the hip capsule is loose and alone determines the extremes of motion of the joint when the bony framework of the joint is intact and would not interfere with this degree of rotation of the femoral head fragment.

It is believed that the rotation of the head which tears the ligamentum teres is brought about by the concerted spasmodic contraction of two powerful groups of muscles as the abductors of the hip pull mesially upon their osseous insertion (the great trochanter) holding the fracture surfaces of both capital and distal fracture fragments together somewhat like the cogs of cog-wheels. The more powerful muscles of the thigh force the distal femoral fragment upward, thus rotating the fracture end of the spherical capital fragment upward and the fovea side of this head fragment downward, in this way tearing or evulsing the ligamentum teres.

The displacing influence of the same forces which produced the fracture may also aid in this phenomenon and then the very weak ligamentum teres gives way.

Dr. Gwilym G. Davis (2) may be quoted in this connection. "The ligamentum teres is composed of synovial and connective tissue. It is not strong and ruptures at about 14 kilos (30 pounds): the small artery it contains affords nourishment for itself alone, only a very small amount of blood going to the head of the femur. Bland Sutton regards it as a vestigial structure and a regression of the pectineus muscle. It is too weak to add much to the strength of the joint, and the view of Allis that its function is to distribute the synovial fluid and act as a lubricating agent is probably correct. The great pressure to which the articular surfaces of the hip-joint are subjected requires special lubrication and this is furnished by the ligamentum teres and Haversian gland."

From these studies, it is deduced that in the 447 cases of sub-capital fracture, the weak ligamentum teres was destroyed by torsion rotation or avulsion incident to the explosive displacement at the time of fracture. After many months, or, as is often the case, many years, it is difficult to deduce accurately the circumstances associated with the destruction of the ligamentum teres, or the precise

place where it gave way. Varying degrees of fibrous adhesions to the periphery of the head are sometimes found, but when severed in removing the head, they have rarely been found to bleed to any appreciable extent, thus indicating that an adequate source of blood supply has not reached the capital fragment via this route.

If the ligamentum teres has not been ruptured, its continuity should serve to conduct induced collateral blood circulation of uncertain amount to the capital fragment, even if, anatomically, the blood vessels were very meager.

It is my firm belief that in those cases coming to nonunion, the destruction of the ligamentum teres at the time of the fracture is the important determining factor in the prevention of union. In other words, one is justified in coming to the conclusion that when the ligamentum teres is destroyed, the capital fragment becomes practically a joint mouse. Because of the intervening joint cavity, no collateral blood supply can come to it as in the case of other fractures from adherent overlying muscles or soft parts, and also as an added obstacle to union, the synovial fluid extending between the fracture surfaces of the femoral fragments completely bathing these surfaces. This must act as a real barrier preventing granulation tissue or callus extending from one fracture surface to the other, thus influencing inhibition of the very beginning of the attempted union.

It can be further deduced that it is only in central or sub-capital fractures that the mechanics are such that the spherical shaped capital fragment is permitted to rotate under the superior edge or roof of the acetabulum. When primary impaction occurs, there can be no rotation or twisting of the head; therefore, the ligamentum teres does not become torn or evulsed. This undoubtedly is one of the principal reasons, if not the determining reason, why such fractures are much more favorable to union. By the same token, it does not follow that secondary artificial impaction by the surgeon is of the same value because rupture of the ligamentum teres and surrounding periosseous soft structures may have already taken place by the primary rotation of the head fragment. When the fracture occurs further out in the neck of the femur, especially when it is transtrochanteric, the capital fragment is so long that it cannot become rotated under the rim of the acetabulum. Therefore, the ligamentum teres does not suffer. Also, if the fracture is so far out that it is partly or completely extra-articular, the adherent soft parts of the distal end of the capital fragment will prevent its rotation to such a degree as to rupture the ligamentum teres and they will also serve to convey blood vessels to the fracture junction of both fragments. There is thus a double reason for the statement so frequently made that transtrochanteric fractures always unite, whereas the prognosis is poor in sub-capital fractures treated by mechanical fixation alone.

Some years ago, the late Willis C. Campbell and I published statistics of results in two separate reports of the application of tibial bone-graft peg in ununited subcapital fractures of the neck of the femur, each showing better than 94 per cent of unions. The significance of these results is important, inasmuch as Campbell and I were dealing with cases in which the fundamental indications were the same as in fresh fractures, but much more unfavorable (1) because they were pseudoarthroses; (2) the capital fragment had become practically a joint mouse and (3) the urge of primary repair had long ceased to exist.

By chance, through a fault of technic on my part in failing to approximate or impact the fragments in three of these

cases, we were unexpectedly able to learn of the unusual potentiality in a situation in which under any other type of treatment it would have meant failure. The hiatus between the fragments in these cases varied in extent from one-half to two-thirds of an inch and was spanned within the joint by the bonepeg alone. Post-operative X-ray studies of these cases made periodically showed that the peg constantly increased in size to the degree that it finally filled in the hiatus completely. This occurred in spite of the fact that the fragments were separated and the peg situated in the joint cavity surrounded by synovial fluid, blood vessels extending through it from the trochanter fragment to the capital fragment, the peg by its inherent osteogenesis having filled this space between the fragments with resultant union. The importance of this observation is self-evident as showing the potentiality of the bone-graft under most unfavorable conditions. It might well be asked what would have happened had a metal agent been used? In this respect, however, it should be commented that in many instances in varying environments, the author has observed that a graft has filled in spaces many times more extensive than in the cases cited, even as to as much as sixteen times the dimension of the hiatus in any one of the cases, the only difference being that the longer grafts were surrounded by vascular conducting soft tissues instead of spanning a joint space filled with synovial fluid.

Bone, being a supportive and relatively undifferentiated tissue, is able to suffer the absence of its blood supply for a considerable time without adverse effects; because of this, among other reasons, it is extremely favorable for transplantation. The rapid and profuse vascularization of a bone-graft is one of the most striking features encountered. When a portion of the complete diameter of a long skeletal bone has been replaced by massive grafts of much smaller diameter, the whole shaft will be restored not only to its complete diameter and strength, but will also develop a completely vascularized marrow cavity. The same phenomenon occurs in the use of a bone-graft as a terminal structure, such as in building digits where a tibial bone-graft is inserted into a tubular skin graft to restore a finger or thumb, which the author has successfully done many times. In this instance, there is a physio-biologic demand for blood at the distal end of this bone-graft and in response, a collateral circulation is developed throughout the whole length of the graft to the extent of a marrow cavity with its incident blood vessels. The analogy is identical to that of the peg graft conveying blood to the anemic femoral head from the very vascular cancellous tissue of the trochanter. These characteristics, as well as the osteogenetic capacity of the autogenous bone-graft peg, together with its mechanical strength, determines it to be the ideal means of treatment in operable cases of both fresh and ununited fractures of the central intraarticular portion of the neck of the femur. It is the only answer to the tripod of necessity in the treatment of such fractures, for it first furnishes efficient immobilization and, secondly, a living scaffold for conveying vascularization to the anemic head fragment, and thirdly, it brings an osteogenetic, callus-forming influence to the fracture junction.

To show the unusual vascularization capability of a bone-graft, Sir Arthur Keith, the famous practical pathologist of England, has prepared at the Museum of the Royal College of Surgeons in London, an extensive number of specimens. These specimens are prepared and injected and show the early and profuse vascularization of bone-grafts when used

for a variety of purposes. In restoring extensive lost portions of shafts of bone and in a multitude of other uses, as well as in animal research, my own experience has in every instance confirmed Sir Arthur Keith's findings.

It is, however, of great importance in cases where other types of treatment have been employed, especially the various kinds of metal fixation agents for the surgeon to be eternally vigilant in watching for the earliest evidence of the beginning of nonunion. If there should be any change of position in relation to fragment, or failure of callus formation or absorption of bone around the metal, even of the slightest degree, as shown in good X-rays, this is evidence that union is not taking place. Very soon proof will follow with bone absorption at the neck of the fracture junction, indicating that there is an inadequate blood supply and that the ligamentum teres has been ruptured or destroyed by rotation of the head at the time of the fracture. Under such conditions, if bone absorption is to be avoided and union is to be secured, immediate action is urgent. With the fragments in good position, a bone-graft peg of at least one-half inch diameter should be inserted immediately..

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SUMMARY

Sub-capital fractures of the head of the femur are the most unfavorable fractures for union. Reduction and maintenance of the fragments in position are not enough to ensure union. As the only blood supply coming to the femoral head fragment is through the ligamentum teres, when the ligament is torn, as it often is, the blood supply is cut off. The various factors which induce tearing of the ligament are discussed at length. The ligament is not very strong; its principal function probably is to distribute the synovial fluid which acts as a lubricating agent in the joint.

In non-union, the destruction of the ligamentum teres is the determining factor. The absence of a collateral blood supply acts as a real barrier, preventing granulation tissue or callus extending from one fractured surface to the other. In primary impaction, the ligament is not torn; hence these fractures are much more favorable to union.

The author stresses the results in the application of tibial bone-graft peg in ununited sub-capital fracture of the femur neck; these are very good, better than 94 per cent of unions. By its inherent osteogenesis, the bone-peg fills the space between the fragments, and union results. Bone-graft vascularizes rapidly and profusely and is, therefore, the ideal means of treatment in both fresh and ununited fractures of the neck of the femur. The surgeon should be on guard for the earliest evidences of non-union. With the fragments in good position a bone-graft-peg of at least one-half inch diameter should be inserted immediately.

SUMARIO

Fracturas de la cabeza del hueso-femoris en la cadera (intra-capsular) son las más difíciles para obtener la unión. La reducción y fixación de los fragmentos en posición correcta no es suficiente para asegurar la unión. Como la única vía arterial de nutrición es por medio del ligamento teres, en caso de

ruptura del ligamento, que occurre con frequencia, la nutrición del fragmento cabezero está cortado. Los factores que causan la ruptura del ligamento teres son discutidos en detalle. El ligamento no es fuerte, su función principal es probablemente la distribución del flúido sinovial y la lubricación de la juntura. En caso que no existe la unión, la destrucción del ligamento teres es el factor que determina el resultado.

La ausencia de una circulación colateral constituye el obstáculo principal, impidiendo la formación de tejido cicatricial y osteogenético de un lado a otro de la linea de fractura. En fracturas impactadas de la cadera el ligamento teres queda intacto y por consiguiente más favorable a la unión. Los resultados de la aplicación de un injerto-oseo (clavija) del tibia en fracturas del femur intracapsular en la cadera, sin unión, son muy satisfactorias, con éxito de más de 94 por ciento de unión. La cualidad osteogenética inherente en el injerto-oseo llena el espacio entre los fragmentos que resulta en la unión. La clavija o injerto-oseo se vasculariza rapida y abundantemente y por consiguiente es el tratamiento ideal en ambos casos de fractura reciente y en fracturas en el cuello femoral, sin unión. El cirujano deberá alertarse de los primeros signos de falta de unión. Con los fragmentos en buena posición un injerto-oseo (clavija) por lo menos de una media pulgada de diámetro debiera ser insertado, sin pérdida de más tiempo.

RÉSUMÉ

Les fractures de la tête de fémur offrent un mauvais pronostic sous le rapport de consolidation. Il ne suffit pas de réduire la fracture et de maintenir les fragments en position pour assurer l'union. La tête de fémur reçoit son sang nourricier uniquement par l'intermédiaire du ligamentum teres; quand ce ligament est rupturé, ce qui est fréquent, tout apport de sang est supprimé. Les différents facteurs qui entraînent la rupture de ce ligament sont étudiés en détail. Le ligament n'est pas très solide; sa principale fonction est de distribuer la synovie et de remplir le rôle d'agent lubréfiant de l'articulation. Quant il y a absence d'union de facteur causatif est la destruction du ligamentum teres. L'absence de circulation collatérale empêche le tissue de granulation vu le cal de se propager d'une surface fracturée à l'autre. Dans les cas d'enclavement des fragments le ligament n'est pas déchiré et dans ces pronostic est moins défavorable.

Выводы

Переломы бедряной кости, как правило, плохо заживают. Вытягивание осколков и фиксации еще не гарантируют союз. В виду того, что головка бедряной кости снабжается кровью чрез лигаментум терес, перерыв этой связки лишает осколка его кровоснабжения. Эта связка не особенно крепка, ее главная функция ето снабжать сочленение синовиальной жидкостью. Перерыв этой связки и представляет собой главную причину не заживания. Отсутсвие колятерального кровоснабжения мешает развитию грануломной ткани и новой кости. При первичном окалачивании (импакции) осколков связка не разрушается и поэтому также переломы хорошо заживают.

Трансплантат из большеберцовой кости дает найлучшие результаты в незаживающих переломов шейки бедряной кости, свыше 94 процентов. Костяной метод плантет (графт) быстро васкулизируется. Он представляет собою идеальный метод лечения как свежих так и старых переломов шейки бедреной кости. Хирург должен цледить за ходом лечения и уметь угадывать самые ранние признаки не заживания. При правильной позиции осколков нужно немедленно наложить графт толщиной не меньше чем в пол вершка.

Surgery of Diabetes Mellitus*

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AFTER twenty years, the use of insulin in the treatment of diabetes mellitus has produced no greater effect than to prolong life and make it more comfortable. The hope of curing diabetes or even of arresting the progressive development of incipient diabetes by early treatment with insulin, has been in vain. Insulin therapy has not influenced pancreatic secretion of insulin over and above the transitory effect produced by the hormonal substitute, and, surprisingly, the number of cases of diabetes mellitus has even increased since the discovery of insulin. Wilder, of the Mayo Clinic, noted that diabetes was uncommon before 1930, but now it is one of the most frequently encountered diseases. In order to explain this apparent paradox, different hypotheses, more or less acceptable, have been suggested, the details of which will not be discussed here.

The work of Minkowski remains fresh in the minds of many clinicians, but in spite of his classic experimental achievements, it has not been possible to obtain definite results by glandular inoculations. Allen performed extensive partial pancreatic surgery on dogs and noted at the end of a year that there was a pancreatic hyperplasia. However, this does not permit generalization in relation to the human organism; the diseased pancreas does not react in the same manner as the healthy pancreas. Of late years clinicians have come to believe that surgery may be used to solve the hitherto obscure and intricate medical problem of diabetes mellitus. Experimental and surgical achievements have strengthened this belief.

The object of this paper is to point out the possibilities afforded by surgical intervention on the sympathetic nervous system, particularly the medullosuprarenal parts in conditions of diabetes mellitus, and to evaluate the therapeutic benefits therefrom. It represents the culmination of a series of experimental studies made in collaboration with Doctor Francisco Fonseca in Mexico.

EFFECT OF SURGICAL INTERVENTION

In regard to treatment of diabetes mellitus by surgery, surgical effect must essentially depend upon the glycogen regulatory function of the splanchnic suprarenals. Its principal, therefore, depends upon the physiopathologic characteristics of the splanchnic nerves and their glandular neurohormonal correlations, the suprarenals being considered the center of the equilibrium affected by this action and the pivot of the neuroendocrine glandular interrelations. The unstable balance, indicated by the pathologic picture, once known, the surgical procedure is then outlined with the object of favorably reestablishing the

* Translated by Senora B. De Lecuona and Alfred E. Gallant, M.D., F.I.C.S.

equilibrium or modifying the unbalanced state.

The objective is to limit or suppress the suprarenal glandular function, without suppressing the bilateral glandular system, as that would not be consistent with life. Agreeing with this, and also with the indications for surgical intervention, preference should be given to suprarenal juxtaglandular enervation, conceived by Ciminata and originally perfected by Donati, and to the subdiaphragmatic extraperitoneal splanchnicectomy, exactly as recommended by Pende. The manner of extraperitoneal lumbar approach of both technics permits an easy combination, if such should be desired. Likewise, we can utilize as a preoperative functional exploration, to serve as indicator of what may be anticipated with some exactitude from the intervention, the functional splanchnic alcoholization, as suggested by Alessandri and Valdoni. Alcoholization is done generally from the left, level with the XI dorsal vertebra, affecting the large and small splanchnic, the thoracic spinal ganglions of the VI and XI dorsal vertebrae, the internal and external communicating branches that separate them, and one or two intercostal nerves, in fact, of the entire thoracic sympathetic system.

The surgical interventions to which I have referred have purely functional merit; their action is exerted upon the neuroglandular suprarenal equilibrium.

PHYSIOPATHOLOGIC SOURCES

The remarkable experiments of Claude Bernard, producing hyperglycemia and glycosuria by puncturing the fourth ventricle, are well known. Kalm, Blum, Eppinger, Erlandsen, Falta, Herzberg, Richards, Runddinger and Vosburgh have demonstrated that an excess of adrenalin tends to produce hyperglycemia, while ligature of the suprarenal veins causes hypoglycemia. Kalm, Mayer and Tscheboksaroff have demonstrated in like manner that the effects under discussion follow the course of the splanchnus, since ventricular puncture remains ineffective if the aforementioned nervous paths have been previously interrupted. Geiger and Szirtes have noted an appreciable increase of hypoglycemic action of atropine, following division of the splanchnic nerves.

Boggico, David, Frouin, Mayer and Zuelzer, experimenting with ligature of the suprarenal veins of depancreatized animals, have deduced that bilateral suprarenal enervation produces a hypoglycemic reaction. Ciminata first attempted systematic investigation of glycemic modifications subsequent to suprarenal enervation, experimenting in the laboratory upon animals hyperglycemized through faradic stimulation of the sciatic nerve. These animals, after bilateral enervation in consecutive periods, survived for a considerable length of time, showing a decrease in the induced hyperglycemia. Takats showed, lastly, that a notable increase in the tolerance of hydrocarbons follows bilateral suprarenal enervation or unilateral enervation with splanchnicectomy and with opposite lateral suprarenalectomy, and he noted that this tolerance reached its height at six months and continued even after a year. Bianchi and Moretti showed in further studies that the glycemic cipher in some diabetics may be reduced with ergotamine.

Glycogen regulation is found to be governed by a double physiological mechanism that is antagonistic and interactive, that is, the vagopancreatic junction represents a system of hypoglycemic action while the splanchnicosuprarenal junction constitutes a system of hyperglycemic coordination. Interruption of the union of the nerves through suprarenal enervation, although treated

by splanchnicectomy or juxtaglandular enervation, destroys the equilibrium of the two antagonistic systems and produces as a result: (a) rupture of the vagopancreatic splanchnic suprarenal, followed by hypoglycemia; (b) conspicuous and lasting hypoglycemia through hypoadrenalinemia; (c) greater toleration of the hydrocarbons. Thus, besides the therapeutic importance that the suprarenal enervation has for pancreatic diabetes, whether operating on the periglandular nervous plexus or on the splanchnic course, or upon both at once, if the hyperglycemia is lowered through the decrease in adrenalin, there is a tendency to balance the insufficient pancreatic insulin with beneficial modifications in the disturbed metabolism of the hydrocarbons.

We have approached the problem of diabetes mellitus according to the following method: (1) functional splanchnic division through alcoholization in normal individuals, with the object of ascertaining the corresponding modifications in glycemia; (2) functional splanchnic division through alcoholization in pancreatic diabetes, with the object of evaluating the effects upon the hyperglycemia and the glycosuria and likewise as a functional preoperative exploration in such case; (3) surgical intervention in pancreatic diabetes in those upon whom the operation is advised, following preoperative functional exploration.

GLYCEMIC CURVES IN NORMAL CASES

Fifty observations were made upon adults; in twenty cases the quantity of glycine was ascertained immediately before the splanchnic block, in order to know the normal cipher of control and after alcoholization was accomplished. After fifteen minutes, after three hours, on the following day, after two days and afterward every three days, until the glycemia became approximate to that obtained immediately before alcoholization, the quantity of glycine was determined. The remaining determinations were made immediately before the alcoholization, and afterward every five days until it was noted that the glycemia was approximate to that obtained before the alcoholization. The following was noted: After fifteen minutes there was a marked glycemic decrease of 24 to 32 mg. per 100 c.c.; after three hours, hypoglycemia somewhat more or less than the preceding; the next day, marked hyperglycemia, .0 to 160 mg. per 100 c.c., an increase that may continue with slight variations for twenty-four hours. After two days one may still note hyperglycemia, which at times may be extraordinarily low—26, 28, 34, 40 mg. per 100 c.c., sometimes continuing very low for three days and after five days, glycemia becomes the lowest; near the end of the first week, hypoglycemia is approximately 20 to 25 per cent lower than the normal of controls. The hypoglycemia that is established at the beginning of the second week continues with slight variations for the entire period of splanchnic block, with a tendency to disappear accordingly as the splanchnic block lasts or to reappear as the splanchnic function reestablishes itself. The hypoglycemia lasts from three to six weeks but we have observed four cases where it lasted two months.

GLYCEMIC CURVE IN DIABETES

In eighteen cases of pancreatic diabetes, we performed functional splanchnic division through alcoholization. The degree of glycemia was ascertained before the splanchnic block, in order to know the pathologic cipher of control and was continued every five days in ten cases and each week in the remainder, until the glycemia showed higher numbers as revealed by the denomi-

nator; in three cases determinations of glycosuria were made at the exact time of those of glycemia. The patients were instructed from the moment of alcoholization to ignore the anti-diabetic diet and to eat normal food, immediately cutting the insulin and all medical treatments, with the exception of three cases, in which antileutic therapy was continued because of syphilitic infection.

The results obtained from this study were:

1. Hypercemia decreases a little at the end of the first week and rises definitely, proving this is not a pancreatic diabetes and nothing is to be hoped for through surgery.

2. The hyperglycemia remains the same for one or two weeks, then disappears suddenly and normal glycemia is noted.

3. The hyperglycemia remains the same for one or two weeks, then disappears gradually and normal glycemia is noted in one or two weeks.

4. The hyperglycemia disappears, the glycemia returns to normal, or one observes a slight hypoglycemia at the end of the first week, but notes also, a continuation of transitory hyperglycemia, at times slightly greater than had existed, which disappears in turn, with normal glycemia or slight hypoglycemia at the end of the second week.

5. The effect of splanchnic block through alcoholization was that three to six weeks time elapsed between the disappearance and the return of the hyperglycemia, a period of time similar to that of hypoglycemia after alcoholization of normal individuals.

Nevertheless, the glycosuria is not always related to the glycemic index. Three cases in which the glycosuria was studied in relation to the glycemia are illustrative in this respect.

1. The glycosuria increased before the decrease of hyperglycemia began in the case of F. C., aged 36. This patient had a hyperglycemia of 220 mg. per 100 c.c. and glycosuria of 50 gm. per 1000 c.c., and later 220 mg. of hyperglycemia and 71.4 gm. of glycosuria.

2. The glycosuria increased with the descent of the hyperglycemia in J. H., aged 39, with a hyperglycemia of 300 mg. per 100 c.c. and glycosuria of 66 gm. per 1000 c.c., and on continuation 214 mg. of hyperglycemia and 100 gm. of glycosuria.

3. The degree of glycosuria was 8 to 36 gm. per 1000 c.c., at the same time that glycemia ciphers were 75 to 125 mg. per 100 c.c., in M. R., aged 58, diabetic insulin-resistant patient of long standing. Therefore, without losing sight of the great importance of the glycemic ciphers in comparison with the glycosuria, the paradoxical increase of this could perhaps be explained by taking into account essentially renal factors: (a) the renal nerves, for the greater part from the celiac plexus (you are reminded of their correlation with the large splanchnic), of the small splanchnic, and of the changeable lesser splanchnic, lower or abdominal; (b) the renal nerves are principally vasomotor, in part, motor and secretory.

The clinical improvement of the patients has been shown. The weight, decreased at times as much as a kilogram (2-1/5 lbs.) during the first week, registered an increase of half a kilogram to three kilograms in a month over the initial ciphers. The working capacity always increased immediately following the splanchnic block, the asthenic block, the ambliopia, and the drowsiness disappeared. The old cardinal symptoms moderated, the appetite became almost normal, with little thirst and less urination. The gangrenous or suppurative processes in this case were rapidly influenced from the first moment toward a cure. Two patients with gangrene of the foot: A. R., aged 17 and B. G., aged 39, previ-

ously mentioned, with an abcess of the mammary gland following three days after splanchnic block, changed specifically in spite of the fact that J. H. showed hyperglycemia of 300 mg. per 100 c.c. and glycosuria of 66 gm. per 1000 c.c., just at the moment of the widening. The rapid healing of these lesions indicates clearly the urgency for surgery in pancreatic diabetic patients.

OPERATIVE RESULTS

In virtue of the fact that our experience is still insufficient and limited in operative results, I do not consider myself yet authorized to give definite conclusions. Nevertheless, our few statistics, recently submitted to the Mexican Academy of Surgery, give some hopeful promise, in spite of the short time of observation. I will mention two illustrative cases.

J. H., aged 39, with a hyperglycemia of 288 mg. per 100 c.c., and glycosuria of 56 gm. per 1000 c.c. at the end of the first week after left suprarenal juxtaglandular enervation was performed, had a glycemia of 125 mg. per 100 c.c. and no glycosuria. In two months there was a glycemic fluctuation of 125 to 176 mg. per 100 c.c. The glycosuria reappeared after the first month, at times no more than 6 gm. per 1000 c.c. During eight months, at the end of which the observation was discontinued, there followed alternatively periods of almost normal glycemia and glycosuria, with notable improvement of the symptomatology, good toleration of hydrocarbons, and increase of six kilogrammes of weight in eight months.

C. T., aged 27, insulin resistant, with a hyperglycemia of 310 mg. per 100 c.c. glycosuria of 32 gm. per 1000 c.c., following redivision of the large splanchnic and of the small splanchnic and left juxtaglandular suprarenal enervation, showed immediate, noticeable improvement of the symptomatology. At the end of the first week, the glycemia decreased to 75 mg. per 100 c.c. and the glycosuria disappeared. Observation was continued for six months, the glycemia fluctuating from 114 to 136 mg. per 100 c.c., with reappearances at times of the glycosuria, not greater than three gm. per 1000 c.c. There was good toleration of the hydrocarbons, and an increase of four and a half kilogrammes in weight in six months.

In addition to our two cases I wish to mention the earlier classic cases of Donati, of Corachan and Simarro, of Schmidt, the three interesting ones of Giordano and those of Crile. I agree with Ciminata that the first suprarenal juxtaglandular enervation, as practiced by Donati, is an example of what one can expect from this form of surgery. His patient, a woman gravely ill with diabetes mellitus, who following the operation showed absence of post-operative hyperglycemia and noticeable diminishing of the hyperglycemia, the glycosuria and the pollakiuria remained in a satisfactory condition during a period of three years, at the end of which the glycosuria reappeared but was controlled by very small doses of insulin.

Neurohormonal surgery gives one confidence in the surgical treatment of diabetes mellitus. Neurohormonal surgery in this, as in other pathological conditions, for the greater part considered as incurable, may now be extended to the treatment of diabetes mellitus.

Observations here recorded, for the greater part, have been made in the General Hospital of Mexico and in my private practice.*

SUMMARY

In the surgical treatment of diabetes mellitus, preference is given to the juxtaglandular suprarenal enervation and to subdiaphragmatic extraperitoneal splanchnicectomy, employing as a preoperative indicator, splanchnic functional division through alcoholization. Experi-

* I wish to express my thanks to Dr. Maria Luisa Fernandez for her generous cooperation and to Drs. Gustavo Argil, Alfonso Castrejon, Gerardo Verela and Margarita Perrin for their kind assistance in the laboratory.

mental studies were done as follows: (1) Functional splanchnic division through alcoholization in normal individuals, to determine resulting modifications in the glycemia; (2) splanchnic functional division through alcoholization in pancreatic diabetes, with the object of evaluating the effects on the hyperglycemia and glycosuria, and as a functional preoperative exploration; (3) surgical intervention in pancreatic diabetic individuals, in which the operative interference is advised through the preoperative functional exploration.

SOMMAIRE

Pour le traitement chirurgical du diabète sucré, l'auteur donne le préférence à l'énervation jutaglandulaire de la surrenale et à le splanchnicectomie sous-diaphragmatique extrapéritonéale. Il emploie comme indicateur préopératoire, la division fonctionnelle du splanchnique par alcoholisation.

Il proceda ainsi dans ses recherches expérimentales: (1) division splanchnique fonctionnelle par alcoholisation chez des sujets normaux afin de déterminer les modifications qui en résultent dans la glycémie; (2) division fonctionnelle splanchnique au moyen d'alcoholisation dans le diabète pancréatique, ayant pour but l'évaluation qui en résultent dans l'hyperglycémie et la glycosurie et comme exploration fonctionnelle préopératoire; (3) intervention chirurgicale chez des individus souffrant du diabète pancréatique dans lesquelles l'exploration fonctionnelle préopératoire indique le traitment opératoire.

SUMARIO

En el tratamiento quirúrgico de la diabetes mellitus se da preferencia a la enervación suprarrenal yuxtaglandular y a la esplancnisectomía extraperitoneal subdiafragmática, empleando como indice preoperatorio la división funcional esplancnica por la alcoholización. El sigguiente estudio experimental se llevó a cabo: (1) División funcional esplancnica por la alcoholización en individuos normales para determinar su acción modificadora de la concentración de la glucosa de la sangre. (2) La acción de este procedimiento en casos de diabetes pancreática para determinar su efecto en la hyperglicemia y la glucosuria y como método de exploración funcional preoperatorio. (3) La intervención quirúrgica en individuos con diabetes pancreática cuando ésta es indicada por los resultados obtenidos con la exploración funcional.

Выводы

При хирургическом лечении диабета предпочтение дается экстрарекальной инервации и субдиафрагмальной спланкнисектомии, причем в виде до-оперативного индекса автор прибегает к функциональному перерыву спланкникуса посредством алкоголизации.

В эксперименте следующее было сделанноь (1) Функциональный перерыв спланкникуса у нормальных индивидуумов, с целью проследить колебания в гликемии; (2) Та-же процедура ы диабетиков с целью определить влияние на гипергликемию и глюкозюрию; и (3) оперативная интервенция у диабетиков придерживаясь указаниям до-оперативной функциональной пробы.

The Prevention of Cancer of the Cervix*

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THE frequency of cancer in the cervix of the uterus calls for greater emphasis on its prevention. There is an extraordinary incidence among parous women as compared with nulliparas. In fact, Cameron considered childbearing the greatest predisposing factor to cancer of the cervix, with 97 per cent occurring in women who have borne children. He reasoned that there is a relationship between frequent fertility and the incidence of the disease. However, he added that since cervicitis and lacerations occur principally in parous women, this may be a factor in the development of the malignancy. While obstetricians emphasize the importance of a check-up weeks after childbirth, there are many who do not heed this advice, and certain unhealthy conditions are permitted to run a course that may lead to dire results.

Curtis stated that the majority of gynecologists believe that traumatisms of childbirth, particularly lacerations with eversion and erosion of the cervix, are important factors in the etiology of cancer of the cervix. Since a cervical stump presents more of a hazard than the average cervix, he believed that, on the basis of our present knowledge, an unhealthy cervix should certainly be removed at the time of hysterectomy, but removal of a healthy cervix should depend on the circumstances of each individual case. According to Curtis, obstructed uterine drainage is a factor in the development of carcinoma of the body of the uterus and of the cervix. In an article published in 1933 I mentioned certain experiments in which mammary cancer in mice was produced by ligating the gland ducts at the nipple, or by preventing the young from suckling, thereby causing retention of breast secretions. It would thus appear that prolonged stasis in any organ or gland may cause sufficient internal irritation to result in malignancy.

In a consideration of the prevention of cancer the question of chronic irritation —external or internal—cannot be too strongly stressed, this despite the fact that Graham argued that there is practically no evidence that chronic mechanical irritation is in any sense a causative force in the production of the disease. He contended that while carcinogenic agents — viruses, certain radiations, chemical carcinogens—may induce cancer, this action is through a specific irritation, and that the chimney sweep's cancer, for example, is due to the action of certain carcinogenic tars, and not to any mechanical or thermal irritation. All this is theoretical and at present its place is in the realm of the research laboratory, but for all practical purposes we can go forward on the basis that prolonged irritation of any kind, from with-

* Read at the 43d Annual Meeting of the American Therapeutic Society, Atlantic City, June 5, 1942.

in or from without, may produce malignancy.

Dr. James E. Davis, formerly of the University of Michigan, in a personal letter to me dated March 24, 1941, stated that "prolonged irritation and injury to tissue has both mechanical and biological effects. The primary tissue is destroyed and epithelial tissue is most susceptible. After all injuries, the biological obligation is to repair that which has been partially or wholly destroyed and the repair material always consists of newly produced cells which are never able to reach the maturity stage in a prevailing status of premalignancy. That this premalignant state is not necessarily contingent upon the presence of any one causative factor appears quite obvious. The sum total of all influences arrest growth of the immature cells, preventing their ever reaching normal maturity. Cell multiplication becomes permanently and excessively stimulated but the ripening or maturing factor is destroyed. This latter factor in cervical cancer may come from (a) old lacerations in which there are abnormal positions of the cells, (b) continued inflammatory stimulation, (c) lowered resistance because of faulty inheritance, imbalance of endocrines, imbalance of vitamins, or other as yet unknown factors."

Recently I visited the great Institute of Experimental Medicine of the University of Buenos Aires, and saw some of the outstanding work being done under the leadership of its Director, Prof. Angel H. Roffo. He has sixty full-time co-workers on his staff in this institute of five hundred beds. They had just reached their one hundred thousandth case of tumors and cancer. Roffo strongly agrees with the irritation theory of cancer production. He contends that strong sunlight, the smoking of tobacco with the heated nicotine passing through the cigar holder or directly from the cigarette or cigar onto the lip, are causes of cancer. In this experimental institute they believe that oil from the particles of dust floating in the city air causes lung cancer, and that certain foods may result in cancer by the irritation of the body cells through substances added to the blood and lymph. Extensive and painstaking animal experimental work on a large scale seems to confirm many of their claims.

In the prevention of cancer of the cervix, as at other sites of the body, all theories of causation must be considered. Some are yet in the experimental stage and it is for the future to decide their worth. The hormone theory may hold the answer to the cause and thus to the prevention of cancer. Gonzalez-Rincones of Venezuela, believes that normal growth is governed by a hormone, that at a given time another hormone retards further growth and that when the latter does not function properly growth becomes riotous and cancer may develop.

Many research centers are investigating the possibility of cancer being a deficiency disease and are studying the chemical values of foods and the amount of each that should be taken daily, to be augmented by concentrated medication when there seems to be a lack of certain chemicals. Some thoughtful workers in this line feel that the proper balance of the biochemistry of the body will result in the reduction of malignant growth. Time and further research may clarify many doubtful points, and work along these lines may result in much prevention of cancer.

But for the present and referring now specifically to the cervix uteri, the consensus of opinion among gynecologists is that the irritation caused by abnormal states at this site lead in a straight path to malignancy. Novak stated that the

secondary changes of lacerations of the cervix—infection of the cervical tissue and chronic cervicitis with eversion of the swollen mucous membrane and at times retention cysts and erosions—are important in the production of persistent leukorrhoea and in the possible dissemination of infection to other pelvic structures, and adds that they are commonly looked upon as predisposing to the development of cervical cancer.

Kennedy and Campbell used the term "abused cervix" to embrace lesions that follow any kind of trauma of the cervix together with conditions that may be infectious in origin, and often erroneously classified as erosions. These, they believed, show a neglect of cervical lesions that is reprehensible. They emphasized points with which we have all had to deal —patients with extensive laceration of the cervix return repeatedly for cauterization and other advice, but repair is not done. A condition may exist during this period of cauterization which may be good soil for the growth of cancer. They stated that while the cautery is of definite benefit to the eroded cervix, it should never replace proper plastic repair of the cervix in conditions of cervical pathology where there is evidence of an extensive laceration with eversion of the cervical lips and erosion—a potential source of malignancy. They stated that many of these patients with "abused cervix", neglected for years, will die from malignancy if the uterus is not removed and that any attempt at repair will fail on account of the great amount of fibrous and scar tissue which prevents proper approximation of the cervical tissue.

Quite apart from any question of malignancy, Crossen and Crossen advocated that the improved method of handling pathological conditions about the cervix consists of effective treatment of chronic cervicitis with the obtaining of a specimen by excision of the entire area. Usually curettage of the endometrial cavity is also indicated to exclude malignancy in that region or to eliminate other endometrial pathology causing bleeding and discharge. This treatment removes the chronic cervicitis, the discharge, and the chronic irritation with the menace of cancer; it permits microscopic investigation of the affected tissue to settle the question of malignancy, and all doubt that may still exist after a negative result from the usual small specimen, is removed.

Cashman and Frank advised subtotal hysterectomy with cauterization of the cervix when benign conditions require removal of the uterus, because the end result is a noninfected smoothly healed cervix, and no subsequent surgical treatment of the cervical stump for inflammation or new growth was necessary in the series of cases they reported. They stated that the cervix is the principal source of postoperative infections after hysterectomy and advocated deep cauterization to sterilize the cervix immediately before the operation. This I believe is an important point and is a procedure I invariably follow.

Throughout my long experience as surgical director of a large hospital for the mentally sick, where patients can be kept under observation for many years, I have had an extensive number of cases with apparently simple ulcer or erosion of the cervix. These I have treated by destruction of the mucous membrane in and around the diseased area with chemical or thermic agents. Cancer has not developed in any of these cases. If they had been considered clinically as beginning malignancy, any method used would have been hailed by some as the great curative agent and the statistics of cancer cures would have been greatly swelled.

The late Bland Sutton of England, with thousands of hysterectomies to his credit, retained the shell of the cervical tissue in cases of uterine disease, benign or on the borderline, by a wedge-shaped removal from above, to aid the support of the pelvic floor. With the epithelial tissue removed in its entirety, he believed that he safeguarded against malignancy and the grave but lesser evil, distressing prolapsus. As a postgraduate student I had the privilege of seeing a great deal of his work and early adopted this method and have used it in a large number of cases with gratifying results.

We are in a quandary with regard to the reason for the development of cancer at many sites of the body, but in the cervix we can again and again point to a definite line that starts from cause and leads to effect. Inflammations, irritated scar tissue, lacerations, erosions, eversions, infections are all common cervical pathologic states that may cause cancer formation. Any eversion of the mucous membrane of the cervix, from its naturally alkaline secretion, into the normally acid secretioned vagina invites inflammation and organic trouble by the change in the environment of the cells. Thus a clear deduction is that the most direct manner in which to try to prevent cervical cancer is the immediate and thorough repair of all abnormalities in this region. It is of the utmost importance that careful examination be made of the pelvis of women, especially parous women, who may complain of an apparently slight disorder. Even in this day of enlightenment I have had women come to me who have been given advice merely on the basis of a description of their symptoms, without even a cursory examination on the part of the physician consulted. The prevention of cancer means first the detection of pathologic states, and then their immediate and proper treatment. It is particularly important to remove as much scar tissue as possible from a cervix before menopause sets in, for it is at this time that the change from benign to malignant is more likely to take place. A cervix repaired before the onset of the climacteric is a cervix that has been given an excellent chance to escape cancer.

It has been said that plastic repair of the cervix is a lost art. My personal observation confirms this statement. While cauterization is the correct and effective treatment in many instances, there are others, too often overlooked, in which repair is the only proper procedure. I have in mind a patient seen recently, a mother of two children, aged 49, with a badly lacerated cervix, who was treated by local applications for ulcer and erosion of this region periodically for five years. She was then taken to a hospital where an annular piece of tissue was removed from the cervix for microscopic examination. The pathological diagnosis was squamous cell carcinoma with superficial ulceration, marked chronic cellular and productive inflammation, and fibroglandular hyperplasia with cyst formation. It took five days for the report to be received—after the cancer had been cut into. Radium treatment was advised but on the insistence of relatives, the patient changed physicians. We removed the tubes, ovaries, uterus and entire cervix. The cancer had not yet attacked the fundus of the uterus or the broad ligaments but there was microscopic proof that in the granulation tissue removed during the Sturmdorf operation of the previous surgical procedure there remained malignant cells of epidermoid carcinoma.

This case is important from many angles. In the first place it is reprehensible that a woman in the menopausal age be permitted to go for five years with extensive scar, ulcer and erosion of the

cervix, without an operation. In the second place, it is profoundly dangerous to cut into cancer and leave malignant cells *in situ* without every precaution being taken to prevent possible spread of the cancer cells. If there was any doubt whatever of the diagnosis a radical biopsy should have been done with cauterization of the diseased area before operating. There are some who say that even the immediate searing of the area with the cautery is not sufficient, for one cannot say at what split second the cells may escape into the surrounding tissue, so delicate is the matter of dissemination of cancer cells. Therefore, biopsy should be performed most cautiously, always with the thought in mind of the avenues of extension that must be blocked off. Too much emphasis cannot be placed on this point. In the third place, the length of time that was permitted to elapse from the removal of the tissue to the receipt of the pathological report, to the time of complete operation, might have spelt the death sentence for this unfortunate woman.

I desire to interject a note of warning here. In my practice I have observed examiners who, by their rough handling, have sometimes caused tissue trauma. An examiner who, with finger in vagina and hand on abdomen, pulls at the organs or palpates the abdomen roughly to determine if the ovaries or tubes are out of place is treading on dangerous ground and by this process, which is practically a massage of the area, can disseminate cancer cells, if they are present, to the surrounding area. If cancer is present, or there is an ulcer or erosion or cyst of the cervix, cauterization of the diseased area should be done as a precautionary measure before thorough bimanual examination is attempted.

During curettage operators may so forcibly pull down the cervix with the tenaculum that the tissue may be cut into and injury to the surface sustained. If this occurs through an area of erosion or ulceration the trauma may have serious results, and if cancer is already present the malignant cells are thus transplanted deep in the tissue. Since cancer starts in the epithelium it is highly dangerous to transplant the diseased epithelial tissue. This procedure may nullify the best surgical technic.

CONCLUSIONS

1. Hyperacidity of the body should always receive attention.
2. Periodic examination of the cervix of parous women should be regularly done, for it is in this group that one finds the extremely high percentage of cancer of the cervix.
3. Bimanual examination and curettage for microscopic study in any suspected case of uterine or cervical malignancy should be performed with great care and gentleness.
4. In examining, expose the cervix to view and grasp with the tenaculum forceps what seems to be the healthy, not the diseased area.
5. All scar tissue of the cervix should be removed as far as possible before the climacteric.
6. Any eversion of the mucous membrane of the cervix from its naturally alkaline secretion to the normally acid secretion of the vagina should be remedied, for the chemical change causes irritation. The epithelial cells as a rule, and not the scar *per se*, are the starting point of malignant change. The acid bath of the cells may be the irritation needed to start the malignant process.
7. If there is a recurrence of ulcer or erosion of the cervix, discontinue cauterization and resort to operation.
8. Scars, papillomata, cysts, erosions, ulcers, lacerations, and all like ab-

normal conditions should receive prompt and adequate treatment.

9. Chronic irritation, external and internal, should be guarded against at all times.
10. It should be borne in mind that the massage or forcible handling of a cancerous area may break down Nature's barriers and spread the disease. While cancer is not transplantable from man to man it can be transplanted in the same host. These points should be remembered when examining or operating on a patient with cancer or suspected cancer.

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RÉSUMÉ

L'inflammation, l'irritation de tout tissu cicatriciel, les lacérations, les érosions et les infections sont des états pathologiques du col de l'utérus qui fréquemment déterminent le cancer du cervix. Pour prévenir cet état funeste, il importe de corriger immédiatement et totalement toutes ces anormalités. Les éversions de la muqueuse du col et sa sécrétion alkaline est nuisible sécrétion acide vaginale. Ces éversions doivent être corrigées car cette altération chimique provoque une irritation et cette irritation peut entraîner l'éclosion d'un cancer. La réparation plastique du cervix est d'une importance primordiale. Quoique la cautérisation du col suffit et entraîne la guérison d'un grand nombre de cas, il existe des cas, surtout des cas d'ulcérations récidivantes, dans lesquelles il ne faut pas retarder les différents procédés opératoires appropriés aux indications chirurgicales. Il est bon toute manipulation violente d'une lésion de ne pas oublier que tout massage, que cancéreuse peut briser la barrière établie par la nature et amener l'extension de la malade. Gardons ceci à l'esprit quand nous examinons ou opérons une malade présentant des lésions qui suggèrent l'existence possible d'un cancer.

SUMARIO

Las inflamaciones crónicas, las laceraciones y erosiones, las eversiones, y las infecciones crónicas son estados patológicos comunes del cuello uterino que pueden favorecer el desarrollo del cáncer en este órgano. La reparación inmediata y completa de todas las abnormalidades de esta región es el método más directo para prevenir el cáncer, especialmente cuando se práctica antes de que se manifieste el climaterio.

La eversión de la mucosa del cuello uterino la somete a la acción irritante de las secreciones ácidas de la vagina que con el tiempo puede contribuir a precipitar el desarrollo del cáncer, por lo tanto es importante el remediar esta condición patológica.

Es importante el practicar la cirugía plástica del cuello uterino. Aunque la cauterización es efectiva en muchos casos, es preferible el no retardar la intervención quirúrgica en aquellos casos de úlceras recurrentes. Es de importancia el recordar siempre que el masage y la manipulación innecesaria de todo tejido canceroso puede romper las barreras naturales y así favorecer la propagación del cáncer, por lo tanto, es menester el proceder con cautela cuando se examina o se opera un paciente con probabilidades de cáncer.

Выводы

Воспаление, рубцы, разорванная ткань, эрозии и инфекции шейки матки представляют собою обыкновенные патологические состояния ведущие к злокачественному перерождению. Удаление этих условий найлучший метод предупреждения ракового процесса. Иверсия слизистой шейной оболочки и ее подвергание кислому секрету влагалища ведет к раздражению, которое, в свою очередь может служить главным фактором в злокачественном перерождении клеток.

Каутеризация, а при рекурентных язвах, оперативное вмешательство не нужно откладывать. Массаж и манипуляция злокачественной ткани может вести к нарушению нормальных барьеров и к распространению ракового процесса. Этого факта не нужно забывать при экзамене или операции пациентки с возможным раком.

FOURTH INTERNATIONAL ASSEMBLY

REGISTRATION

Begins Sunday, June 13, 1943 at 2:00 P.M.
Registration desk will be located in the Silver Corridor Room of the Waldorf-Astoria Hotel
All Delegates, Members of the Committees on Arrangements and all others in the City of New York are requested to register on that date
Everyone expecting to attend the Assembly must register.
Registration fee, $3.00
Men in uniform will not be charged a registration fee
Visiting ladies are also asked to register

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of the International College of Surgeons and of the

UNITED STATES CHAPTER

will meet during the Assembly at the Waldorf-Astoria Hotel
For information see Bulletin Board in College Booth

CONVOCATION

See announcement Bulletin Board College Booth
Waldorf-Astoria Hotel, Tuesday, 5:00 P.M.

TECHNICAL & SCIENTIFIC EXHIBITS

Jade Room and Astor Gallery

MILITARY & REHABILITATION EXHIBITS

East Foyer

MOTION PICTURES

West Foyer

DINNER

Sert Room, Tuesday, June 15, 7:00 P.M.
(Dress optional)

Anisocoria in Chronic Appendicitis*

KARL SCHLAEPFER, M.D., F.I.C.S.
MILWAUKEE, WISCONSIN

CHRONIC appendicitis is an entity that is often not readily diagnosed in spite of its numerous clinical symptoms.

Pain in the right lower quadrant of the abdomen on pressure, or rebound tenderness of the abdominal wall, can be due to various causes. The conditions commonly encountered are: disease of the right kidney, ureter, gall bladder, right adnexa, Meckel's diverticulum, or mesenteric lymph nodes; spinal nerves involved in an inflammatory process of the membranes covering them or mechanically compressed by bones of the vertebral column or the discs between them. Spondylitis is a condition to be borne in mind with its abscess formation following the course of the ilio-psoas muscle.

Muscular rigidity in the right lower quadrant is significant of a local peritoneal irritation. If confirmed by rectal examination in eliciting tenderness in the right cul-de-sac (Douglas), the inflammatory process is confined to organs in or close to this area.

Hyperesthesia of the skin (Head's Zone) due to irritation of sympathetic fibers of the vermiform process and sensory nerves of the skin entering the spinal cord at the same level, is not prevalent in chronic appendicitis.

X-ray study is only conclusive if a filling of the vermiform process is obtained and persists for more than 24 hours. In many instances of chronic appendicitis the lumen is partly obliterated or greatly constricted at the base or throughout its course, so that a filling with barium is not obtainable.

Finally, attention should be called to the greater dilatation of the right pupil as compared with the left (anisocoria), as an objective sign of chronic appendicitis. Buchman of Rostow was the first one to study this phenomenon on 3500 cases.

In 1914, Masson and Gosset published a monograph on carcinoid of the appendix which they correlated with lesions of the sympathetic nervous system. These tumors represent extreme changes in the anatomic structure of the sympathetic nerve cell elements located between the muscular layers of the appendix (Auerbach) or in the submucosa (Meissner). In patients operated on for chronic appendiictis, Sawitzkij[1] was able to demonstrate miscroscopic changes in the sympathicus cells and fibers. These changes, consisting of hyperplasia of the cells and fibers, are responsible for the anisocoria observed in chronic appendicitis. The connecting sympathetic fibers belong to the superior mesenteric plexus. They pass through the solar plexus to the ninth and tenth dorsal spinal segment (greater splanchnic nerve). Running along the vertebral column, some fibers are connected with the cilio-spinal center situated between the seventh cervical

* Read before the Wisconsin Academy of Surgery, December 3, 1942.

and the first thoracic segment. Within the rami communicantes they reach the stellate ganglion of the sympathetic system, then continue to the superior cervical ganglion. Running within the internal carotid plexus and joining the long ciliary nerve, these fibers reach Mueller's muscle and the dilator of pupillae muscle. These muscles are responsible for the dilatation of the homolateral (right) pupil.

In cases where the left pupil is wider, Buchman assumed that the corresponding fibers of the mesenteric plexus reach the eleventh dorsal spinal segment instead of the ninth or tenth, cross over to the opposite side and upwards, causing a heterolateral anisocoria.

Pathological changes in the sympathetic nerves and fibers within the appendix, as demonstrated by Sawitzkij, cause homolateral or heterolateral anisocoria. It is, therefore, a reliable symptom for chronic appendicitis.

When testing a person for anisocoria, diffuse bright light is preferable. The patient is told to look at a distant object such as ceiling. Mechanical stimulation of the pupils is then produced by pinching the skin anywhere on the body, or by a flash of light near the pupils. In the presence of chronic appendicitis, pressure is used over a tender McBurney's point as a pupillary stimulant and differences in size of the two pupils observed.

Syphilis, pulmonary tuberculosis and inflammatory or neoplastic lesions of the brain, must be excluded inasmuch as they also may cause anisocoria.

Buchman studied 2000 cases of chronic appendicitis which were confirmed at operation. His conclusions were that in 88 per cent of the patients the right pupil was wider than the left one; in 6 per cent the left one was wider; and in the remaining 6 per cent both pupils were equal. In a second series of 1500 cases Buchman observed a wider right pupil in 93 per cent of the patients.

This symptom was studied in 120 patients operated on for chronic appendicitis and the diagnosis confirmed by pathologic examination of the specimen obtained at the time of operation. My series consisted of 34 males and 86 females, ranging between 10 and 50 years of age.

Age	Cases	Male	Female
10-20	32	10	22
21-30	58	14	44
31-40	22	10	12
41-50	8	0	8

In 83.3 per cent of the cases a wider right pupil was noted; in 6.6 per cent the left pupil was wider; in 10 per cent of the cases no anisocoria could be observed. Clinically, these were cases of repeated exacerbations of a chronic inflammation of the vermiform process.

These patients were followed up 2½ to 5 months after operation. The difference in the two pupils had disappeared, even when using skin or light stimulation. This finding confirms analogous observations of Buchman and Sawitzkij.

An effort was made to produce this symptom in other abdominal conditions such as cholecystitis, and in gynecological lesions and the findings of Buchman and Sawitzkij that no anisocoria can be demonstrated in these conditions were confirmed. This is to be expected inasmuch as pathological changes in the sympathicus of the appendix are responsible for this phenomenon.

SUMMARY

Anisocoria is, in my experience, a very valuable additional diagnostic aid in cases of suspected chronic appendicitis provided syphilis, pulmonary tuberculosis, and inflammatory or neoplastic lesions of the brain or spinal cord are excluded.

RÉSUMÉ

L'aniscoria est dans l'opinion de l'auteur une aide de valeur dans le diagnostic de l'appendicite chronique pourvu qu'on puisse exclure la syphilis, la tuberculose pulmonaire, et les lésions inflammatoires ou néoplastiques du cerveau ou de la moelle épinière.

SUMARIO

La anisocoria, en la opinión del autor, ayuda en el diagnóstico de la apendicitis crónica, siempre y cuando no se deba a la sífilis, a la tuberculosis pulmonar, o a lesiones imflamatorias o neoplásticas del sistema nervioso central.

Выводы

Анизокория очень существенный диагностический признак хронического апендицита, если, конечно, исключен сифилис, легочный туберкулез, и воспламенительные злокачественныя болезни мозга и спинного мозга.

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DUES EXEMPTION FOR THOSE ENGAGED IN ACTIVE MILITARY SERVICE

At the meeting of the United States Chapter of the International College of Surgeons held in Chicago on March 30, 1941, it was unanimously agreed by the Executive Council that Associate Members, Members and Fellows of the International College of Surgeons are exempt from payment of dues during the period of active military service.

Radon Ointment in the Treatment of Indolent Ulcers
An Experimental Study*

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A STUDY is presented dealing with the use of radon ointment in the therapy of indolent or varicose ulcers, no comprehensive data on which is included in the numerous published reports dealing with the application of Radon in dermatological involvements.

The therapeutic use of this preparation was first attempted by Strazburger[1] in 1921. His work was followed by the reports of Uhlmann[2], Isaak[3], Langer[4], Happel[5], Lomholt[6], Veebrink[7] and others.

THEORETICAL CONSIDERATIONS

Radon, a gas, is produced by radium at a constant rate and in an amount directly proportional to the quantity of radium present. It is collected in a vacuum and mixed with anhydrous lanolin. Anhydrous lanolin takes up approximately nine times as much emanation as the same volume of air, and thirty-six times as much radon as the same volume of water. This mixture of radon emanation, a relatively fat soluble gas, and anhydrous lanolin is dispensed in collapsible tubes as *Radon Ointment.* The amount of radon present is controlled by varying the amount of lanolin or radon. The radio activity of the ointment is measured by means of an electroscope and is usually expressed in terms of electrostatic units (E.S.U.) per cubic centimeter of the ointment, one electrostatic unit equalling 0.363 microcuries.

Radon, like all radium derivatives, undergoes constant disintegration. Roughly, one can say that the ointment loses half of its radioactive strength in four days, three-quarters of its strength in eight days and seven-eighths in twelve days. In other words, the loss amounts to 16.5 per cent every twenty-four hours.

The biological effect of radon ointment depends upon the alpha and beta wave radiation which is given off. The alpha rays are an abundant source of radiation but they penetrate only a short distance into the skin, almost one hundred per cent being absorbed in the first millimeter of skin. As approximately 85 per cent of the total radiant energy of radon is due to the alpha waves, the biologic effect is almost entirely superficial.

Beta rays constitute about five per cent of the radiant energy and are absorbed in the first few millimeters of skin. In fact, almost one hundred per cent of both the alpha and beta waves are absorbed at a depth of one centimeter. The effect of the gamma rays is more diffuse. A depth of fifty-one centimeters is reached by the time 90 per cent of the energy is lost.

As to the primary effect of radon ointment, Isaak[3] has calculated that 13.2

* This study was made possible through a grant by the Radium and Uranium Corporation of America to the Georgetown University School of Medicine.

per cent of the radiant energy is liberated in the first centimeter of tissue. This is forty-four times the amount of energy expended at this depth by ordinary sealed preparations or sources of gamma waves of the same initial strength. Most of the remaining energy is dissipated. The differential in the amount of energy absorbed in the first centimeter of tissue from radon ointment and from other sources of radiation explains why a relatively minute amount of radon is effective.

The amount of energy liberated corresponds to a stimulating dose. Clinically this was demonstrated in several very fair-skinned individuals by an erythema and subsequent scaling, which responded readily to anti-phlogistic treatment. Although large doses of radioactive substances may produce untoward effects leading to epilation, telangiectasis, atrophy and ulceration, no instance of such developments was noted in our series.

EXPERIMENTAL WORK

Seventy ambulatory patients that failed to respond to the usual topical forms of treatment were secured from the clinics of Providence Hospital and the Hospital of the Georgetown University School of Medicine for experimental study. Routine laboratory tests were made, including hematology, urinalysis and serology, and were found to be within normal limits in all instances unless specifically mentioned in the patient's case history. It was found that a substantial proportion of the patients was unsuitable for experimental work because of gummata, chronic osteomyelitic sinuses, early varicose stasis dermatitis, etc. Of the remainder only fifteen received sufficient treatment to warrant inclusion in this study. The balance either failed to report with sufficient regularity to make dependable and objective study possible or abandoned treatment of their own will after a few applications.

Radon ointment was applied twice weekly and sealed immediately with oiled silk or rubber dam. Only an occasional case was not sealed and this was usually due to a condition of the adjacent skin contraindicating the application of adhesive tape. The patients were instructed to remove the seal and the ointment twenty-four hours after application and to apply a bland ointment. All cases of varicose ulcers wore elastic bandages during the course of treatment.

The technic of application was as follows: The lesions were cleaned with saline or boric acid solution and then a layer of radon ointment was applied to a depth of one millimeter. Thus one cubic centimeter was used to cover an area of ten square centimeters. A gauze flap was applied over the ointment and covered with a piece of rubber dam or oiled silk. This was immediately sealed with adhesive so that none of the volatile radon would escape. A gauze roller bandage was then applied to reinforce the adhesive seal. This technic of sealing was followed whenever possible. The procedure was repeated twice weekly unless there was some reason for substituting another form of therapy, as, for example, the appearance of erythema following several applications of radon ointment or the request of the patient for another type of therapy. Throughout this experimentation radon ointment with an activity of two hundred electrostatic units per cubic centimeter was used, this presumably being the optimum strength for the treatment of such lesions (8). Photographs were made of the majority of the lesions and in some cases were taken at regular intervals to note the progress of the lesion.

CASE HISTORIES

CASE 1. A colored man, aged 67, fifty years earlier had an attack of typhoid fever that

"went down into the left leg" leaving it larger than normal. This condition persisted but caused no difficulty. Physical examination revealed a blood pressure of 164 systolic and 110 diastolic, with hypertensive heart disease, grade I.

A blow on the ankle in 1936 had broken the skin of the left leg, causing an ulcer which progressed gradually with periods of remission. From 1936 to 1938, various topical applications were irregularly administered. In 1941, routine Unna's Paste boots were applied with little effect.

Examination of the left leg revealed a generalized enlargement, with dilated and tortuous superficial veins. Numerous ulcers, varying from 1 to 3 cm. in diameter, extended from the knee to the malleoli, mainly on the anterior surface. The intervening skin was nodular, indurated and pigmented with areas of "heaped-up" epithelium.

Treatment began in May, 1942 and continued into July, 1942. Nine applications of radon ointment were applied to the ulcers but not sealed because of the extent of the lesions. At intervals, and subsequent to the radon therapy, scarlet red and allantomide were used, with no change in the lesions. Subjectively, allantomide gave the most relief. Results of treatment were negative.

CASE 2. A colored woman, aged 65, had a thrombophlebitis of the left lower extremity in 1936. During the past ten years there had been three recurrences of ulcers of the right leg. The present areas, varying in size from a few millimeters to one large ulcer approximately 4 by 8 cm. in size, appeared in August, 1941. The intervening skin was of tissue-paper thinness and extremely friable to trauma. Routine application of Unna's Paste boots was made from 1941 to May, 1942, without definite improvement.

The patient was given 18 applications of radon ointment, some sealed with rubber, between May and October, 1942. The first 12 applications, made twice weekly, brought no improvement; the next 6 were interspersed with vitamin A and D ointment. For two months thereafter vitamin A and D ointment and allantomide were used, with similar lack of results. Difficulty in sealing was encountered.

CASE 3. A colored woman, aged 49, for an unknown duration of time suffered from a blood pressure of 240 systolic and 120 diastolic, with hypertensive heart disease, grade II.

An ulcer first appeared in April, 1941 and was treated with various topical applications, which produced slow but progressive improvement. During 1942, Unna's Paste boots were applied at regular intervals. When treatment with radon was begun, there were two lesions about 1½ to 2 cm. in diameter on the anterior aspect of the tibia, connected by a small isthmus of ulceration.

From May, 1942 to August, 1942, eleven applications of radon ointment were used, producing slow continued improvement. The patient voluntarily left the clinic with a single ulcer about 1 cm. in diameter.

CASE 4. A white man, aged 60, came to the clinic in 1938 and was found to have chronic bronchitis and mild emphysema. In 1939 he suffered from chronic cholecystitis, which re-

Fig. 1a. An ulcer of 3 months' duration before treatment with radon ointment.

Fig. 1b. The same ulcer during treatment with radon ointment.

Fig. 1c. Thirty days later, after conclusion of treatment with radon ointment. Note erythema and scaling occasionally produced by radon ointment.

sponded to conservative medical management and diet. In September, 1939, congestive heart failure due to hypertensive arteriosclerotic heart disease developed. At intervals during 1939 and 1940, the patient attended the clinic for intermittent attacks of chronic prostatism, for which he refused surgical treatment. At the time of the present experimentation these conditions were minimal. In 1937, a varicose ulcer appeared on the right leg. This healed, leaving a pigmented scarred area.

From February to May, 1942, a rounded punched-out necrotic looking ulcer on the left knee showed no tendency to heal (Fig. 1). From May to August, the patient received nine applications of radon ointment, with a substitution of scarlet red and allantomide when erythema occurred. Radon ointment stimulated epithelization and after two or three successive treatments there was considerable erythematous reaction of the surrounding skin, with some subjective discomfort. Complete healing followed. No recurrence was noted in the next three months.

CASE 5. A white woman, aged 16, in May, 1941, received a blow on the dorsum of the right foot that resulted in the development of an extremely painful ulcer about one-half by 2½ cm. in size. Treatment was administered with various topical applications. In April, 1942, the lesion was completely excised with a primary closure. This broke down after two weeks. The ulcer did not change in size and consisted of heaped-up granulation tissue with several satellite areas where the sutures had been (Fig. 2).

Beginning in May, 1942, twelve applications of radon ointment were applied. Occasionally, when erythema was produced, allantomide and scarlet red were used (eight applications). The ulcer healed completely and the pain disappeared. There was no recurrence in six months.

CASE 6. A white woman, aged 42, in July, 1941, developed a tumor the size of a walnut, diagnosed histologically as a basal cell carcinoma, which was excised from the middle of the back. The wound was packed open and al-

lowed to drain but failed to heal. In May, 1942, x-rays of the vertebral column and four separate biopsy specimens failed to reveal malignancy. At the time of treatment with radon ointment, the ulcer was about 2½ to 3 cm. in diameter and extended inward to the vertebrae. Previous therapy, consisting mainly of sulfanilamide powder and dry dressings applied at irregular intervals, proved inadequate.

Six applications of radon ointment were made during May and June, 1942, with no results. Later routine therapy with peroxide rinsing and sulfanilamide powder produced slow clearing.

Case 7. A colored woman, aged 57, in February, 1942, had an ulcer 4 by 6 cm. in size, with two small satellite ulcers, on the lateral surface of the left leg. Examination revealed moderately dilated superficial varicosities.

Fig. 2b. The same ulcer during treatment with radon ointment.

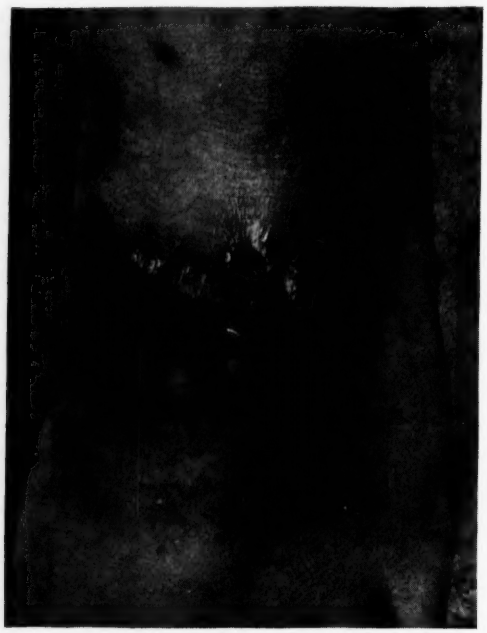

Fig. 2a. An ulcer of one years' duration, six weeks after surgical excision.

Five applications of radon ointment with five alternate applications of scarlet red or allantomide, were made during July and August, 1942. Treatment with radon ointment was then discontinued because the patient complained of a soreness and burning in the leg. The result of treatment was negative.

Case 8. A colored woman, aged 48, complained of chronic varicose ulcers. For three years, routine topical applications and Unna's Paste boots were applied, producing periods of remission. In August, 1942, there were several small ulcers, the largest being 2 by 3 cm. in size, with typical induration and scar tissue contractures. Moderate superficial varicosities were present. From August to November, 1942, eight applications of radon ointment and 22 applications of scarlet red or allantomide were made. Results were negative.

Case 9. A colored woman, aged 51, had been treated for seven years in the clinic for hypertension and obesity. The physical findings showed a blood pressure of 245 systolic and 120 diastolic and hypertensive heart dis-

Fig. 2c. The ulcer 30 days later, showing the healing produced by radon ointment.

ease grade I. Approximately 90 antiluetic treatments had been given from 1936 to 1938. The Kahn test was found positive prior to antiluetic treatments, but negative when considered for radon treatment.

In September, 1942, several small superficial ulcers, varying from 3 to 5 cm. in diameter, developed on the anterior and lateral aspects of the left leg. These were surrounded by erythema and associated with pigmentation and slight induration.

Eleven applications of radon ointment produced slow but continued improvement. One month after complete healing occurred, an excoriation eczema developed in the site of the ulcer and spread slowly over the body.

CASE 10. A colored woman, aged 46, had a history for 32 years of obesity and marked varicose veins. Physical findings revealed an essential hypertension with a blood pressure of 180 systolic and 120 diastolic. In 1930, a varicose ulcer of the right leg was treated by topical applications and injection of the varices resulting in clearing of the lesion.

The present lesion, approximately 2½ by 1 cm. in diameter, with a smaller communicating ulcer, developed in March, 1942, following a trivial injury. Dryness of the skin, induration and marked scar tissue contracture was noted.

Twenty-three applications of radon ointment were made between June, 1942, and February, 1943, without results (Fig. 3). Later sodium morrhuate injection of the varicosities produced slow healing of the lesion.

CASE 11. A white man, aged 60, in 1918 developed a pyogenic arthritis, causing ankylosis of the left knee. In 1938, he suffered a fracture of the neck of the left femur, which produced ankylosis of the hip joint and shortening of the left lower extremity, with ultimate atrophy. Impaired arterial circulation in this extremity was evidenced by dependent rubor and elevated pallor. The peripheral pulses were present and of good quality. There were no varicose veins.

Fig. 3. Case 10. A chronic varicose ulcer, after 20 applications of radon ointment, during a period of 6 months. This shows no appreciable change from the original lesion.

In June, 1941, a trivial injury to the left anterior tibial region resulted in several small ulcers, which gradually became larger and showed no tendency to heal. In October, 1942, there was one large central ulcer measuring 2½ by 7 cm. in diameter and several small ulcers 1 cm. in diameter, in adjacent areas.

Nine applications of radon from October, 1942, to February, 1943, produced slight regression of the large ulcer, but the adhesive seal continually produced several small new areas of ulceration.

CASE 12. A colored woman, aged 49, had essential hypertension with compensated hypertensive heart disease with a blood pressure of 200 systolic and 120 diastolic. There were marked bilateral varicosities with a positive Trendelenburg test and negative Perthes test.

In March, 1942, the patient injured the anterior tibial area and painted the lesion with tincture of iodine. This caused a typical varicose ulcer, without induration or pigmentation, measuring about 4 cm. in diameter.

From September, 1942, to January, 1943, 18 applications of radon ointment were made. On October 22, 1942, a high saphenous ligation was performed, followed by injection of the varicosities with sodium morrhuate. The ulcer showed slight response to radon and healed completely after the surgical procedures.

CASE 13. A colored woman, aged 50, had an essential hypertension with a blood pressure of 200 systolic and 100 diastolic, and compensated hypertensive heart disease, grade II. In December, 1941, the patient fell and scratched her leg, causing the development of a large varicose ulcer, 6 by 8 cm. in diameter.

Twelve applications of radon ointment between September and November, 1941, brought no results. During treatment, congestive heart failure developed, necessitating hospitalization for six weeks. Following bed rest and use of a heat cradle, the ulcer healed completely. Shortly afterward, while the patient was ambulatory, it reappeared.

CASE 14. A colored man, aged 60, had an enlargement of the left greater saphenous vein that showed no varicose dilations and was not tortuous. A Trendelenburg test was positive.

On two occasions small early varicose ulcers, approximately 1 cm. in diameter, were treated with 2 and 5 applications of radon ointment. During the second occasion the ulcer progressed despite treatment, therefore a high saphenous ligation and retrograde injection was performed, using 50 per cent glucose. Later, additional injections of the greater saphenous vein were made with sodium morrhuate. The ulcer healed after surgical procedures.

CASE 15. A white man, aged 35, in August, 1941, received a burn over the inner aspect of the right ankle. Repair by skin graft was unsuccessful. In August, 1942, the lesion was an infected superficial ulcer, 3 by 6 cm. in diameter (Fig. 4).

Nine applications of radon ointment were made. No improvement was noted and the patient voluntarily discontinued treatment.

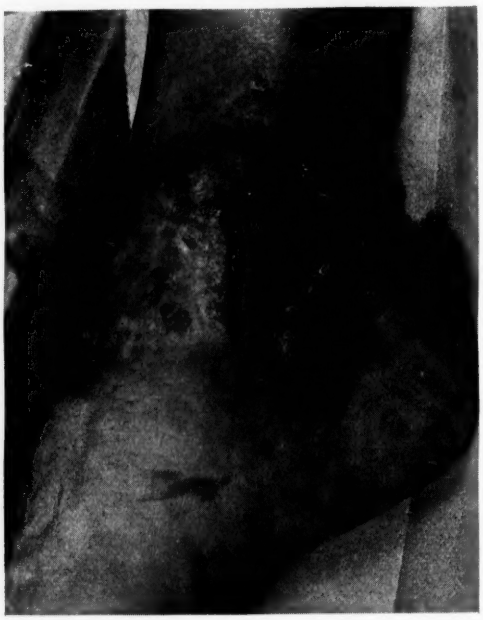

Fig. 4. Case 15. A burn of one year's duration during treatment with radon ointment. Treatment was without effect.

SUMMARY

Fifteen selected and controlled cases representing various forms of indolent ulcers were treated with five to twenty-three applications of radon ointment. Surprisingly good results were obtained

in three cases, one a "thrombophlebitic" ulcer (Case 9) and the other two chronic ulcers of unknown etiology (Cases 4 and 5). Three patients (Cases 3, 11, 12) were improved after varying amounts of treatment but in none did complete healing occur except in one varicose ulcer (Case 12) in which radon treatment was supplemented by a surgical procedure.

Of the nine cases of varicose ulcers, two (Cases 3, 12) improved under treatment and seven showed no response. One patient (Case 13) with a chronic varicose ulcer, who has shown no response to therapy, was forced to bed by congestive heart failure, and the ulcer cleared completely in five weeks with no specific therapy except a heat cradle.

Whenever surgical procedures, such as high saphenous ligation and injection of the varices with a sclerosing agent, were performed, definite improvement occurred irrespective of the result of previous therapy.

CONCLUSIONS

1. Radon Ointment in the dosage and method outlined is of but slight value in the treatment of chronic varicose ulcers.
2. Radon treatment in cases of indolent ulcers of unknown etiology gave eminently satisfactory results.
3. No harmful or toxic effects of any variety were observed.

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SUMARIO

Quince casos representando diferentes tipos de úlceras indolentes fueron tratados con cinco a veintitres aplicaciones del unguento de radón. Los resultados terapéuticos fueron excelentes en un caso de úlcera trombofeblítica y en dos casos de úlceras crónicas de etiología indeterminada. Tres de los pacientes en la serie mejoraron con el tratamiento, pero solo uno de estos tres, un caso de úlcera varicosa, cicatrizó completamente, cuando se complemento el tratamiento por el radón con el de la cirugía operatoria.

De nueve casos de úlceras varicosas solo dos mostraron cierta mejoría, en los otros siete los resultados fueron negativos.

Cuando se usaron ciertos procedimientos quirúrgicos, tal como la ligación alta de la vena safena interna y la inyección de substancias esclerosantes en las venas varicosas se logró una mejoría definitiva. Este mejoría resultó irrespectivamente de todo tratamiento previo.

SOMMAIRE

Quinze cas d'ulcère chronique de la jambe furent soumis à un traitement variant de cinq à vingt-trois applications d'onguent radon. D'excellent résultats furent obtenus dans un cas d'ulcère thrombophlébitique et aussi dans deux cas d'ulcère chronique d'origine inconnues. Il y eut quelque amélioration dan tous les cas, mais aucune guérison complète.

De neuf cas d'ulcère variqueux, deux montrèrent quelque amélioration et sept cas ne donnèrent que des résultats négligibles. Un cas guérit dans l'espace de cinq semaines sans traitement autre que la chaleur.

Dans tous les cas soumis à un traitement opératoire, tel que la haute ligature

de la saphène interne, l'injection de solutions sclérosantes, etc. une amélioration notable fut obtenue.

Выводы

Радон в виде мази употреблялся в лечении 15-и случаев хронической язвы всевозможных типов. Превосходный результат отмечен был в одном случае тромбофлебетической язвы и в двух случаях язвы неизвестной этиологии. Улучшение было отмечено у трех пациентов после продолжительного лечения, но совершенное излечение состоялось только у одного пациента с варикозной язвой после лечения радоном и дополнительной операцией.

Из 9 случаев варикозных язв улучшение отмеченно у двух, никакого улучшения у семи.

Всякий раз когда делалась высокая подвязка коженой вены и вспрыскивание склерозических веществ в расширенные узлы вен, хорошие результаты, как правило, отмечались; независимо от предидущего лечения.

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SCIENTIFIC PAPERS

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Lipomata of the Uterus

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LIPOMATA of the uterus, as the name implies, are tumors composed chiefly of fat cells. A mesh work of other tissue accompanies the numerous fat globules. If a large amount of fibrous tissue is present, the pathologic condition is considered lipofibroma, and if considerable muscle tissue abounds, either a lipomyoma or a fibromyolipoma.

It is surprising to find how little is written on this subject and how few cases have actually been encountered among the great number of uterine tumors receiving laboratory examination in recent years. Apparently nothing has been written about the symptomatology of the condition, either from an objective or subjective standpoint.

The histologic origin of these tumors has been unsatisfactorily explained, and has been differently interpreted by various writers. Some accept Conheim's theory that they are due to hyperplasia of embryonal fat, others to lipoblastic dislocations, because it could not be considered that fat cells developed from either connective or muscle tissue; another theory is that fat proliferated along neighboring structures. Bruennings favored the view that muscle cells were converted into fat cells and Jacobson attributed the development of the fat cells to the infiltration of the connective tissue cells with fat globules.

Wilm's explanation of the origin of this type of tumor by displacement of embryonal rests along the Wolffian duct seems the most credible. In the female, this duct sometimes disappears or only vestigal remnants persist as Gartner's duct. When complete it passes from the epoophoron through the broad ligament, at first parallel with the fallopian tube, thence more diagonally as the base of a triangle whose opposite angle is formed by the uterine portion of the fallopian tube and body of the uterus. Near the level of the internal os the duct passes into the uterine substance gradually but does not reach the mucosa. Beyond the uterus it may extend to the lateral wall of the vagina to the hymen.

True lipomata are considered to be benign, but as most of them have been found by accident during operations for other conditions or by autopsy, their true nature has not been determined. Sufficient data has not been compiled from actual experience to state whether they can be placed strictly in the benign class. In my experience, no recurrence has been noted since operation, nor is there evidence of metastasis, as often seen in malignancy.

The patient's history and objective signs did not differ materially from the usual fibroidal syndrome except that less hemorrhage was encountered and longer periods intervened between bleeding spells. Apparently there was a slower period of development than in the average fibroid or in malignant cases and the tumor mass an usually large, smooth,

boggy mass, rather than hard multinodular indurations. No evidence of any glandular enlargement has been noted in any of the cases recorded in the literature, which strengthens the theory that these tumors are not malignant. A co-existing myocarditis and anemia are present, as in most cases of fibrous manifestations. It is probably impossible to differentiate between this and many other types of uterine tumors without histologic examination of the tissue, although, macroscopically, oil globules can sometimes be expressed by pressure upon the cut surfaces of the tumor.

The presentation of the following case history may give a clearer picture of this type of tumor.

Mrs. H., aged 45, gave as her chief complaint dyspnea, swelling of the abdomen and profuse vaginal bleeding. About two years earlier, the patient had an attack of sudden sharp pain in the right hypochondrium and epigastrium, accompanied by vomiting that lasted about eight hours, followed by sudden relief. A similar attack occurred two and one-half weeks later. After that time, the patient was fairly well until nine weeks before examination, when she began to have dyspnea on exercising. This condition gradually became more severe. About the time of onset of shortness of breath, she began to flow excessively, the flow continuing for six weeks.

Her past history was negative. Menstruation began at 11 years without pain and remained regular until her marriage at the age of 20. From 1904 to 1911 she menstruated three weeks out of four, then ceased entirely for two years. Four years before being seen by me, she began to menstruate again at intervals of three to four months for periods of seven days. She had four full-term pregnancies; two and one-half weeks after the birth of the second child, the patient became paralyzed in the right arm and leg and was unconscious for two weeks, and totally disabled for six months, after which time she began to walk and have some use of the paralyzed arm and leg.

Physical examination showed a stout woman weighing 200 pounds, with an anxious facial expression suggesting ovarian disease. Her teeth were in good condition, the pupil of her right eye was larger than the left, both reacting to light and accommodation. Her neck was short and thick with normal thyroid. Her chest was fat, breasts large and pendulous, with no nodules present, and the nipples were normal. The lungs were normal, the heart rather rapid, with scarcely perceptible beat. A marked haemic murmur was present. The abdomen was adipose and striated. A large, round, hard palpable mass extending from the pelvis up to and about three degrees above the umbilicus was felt. On either lateral abdominal quadrant there were cystic masses. Liver and spleen were not palpable. No tenderness was elicited over any part of the abdomen.

Pathology in the vaginal region was hard to determine, as the entire mass, involving the uterus, extended to the brim. The cervix was small; tubes and ovaries were not palpable. The anus was negative. The extremities, especially the legs, were extremely adipose; on the right leg just above the ankle there was an old scar, which apparently had been an ulcer healed sometime before. The right arm was paralyzed and somewhat atrophied. Bones, joints and glandular system were negative. The skin was rather pale, but not cachectic. Blood examination showed 3,500,000 erythrocytes; leukocytes, 6000; polymorphonuclear cells, 63 per cent; lymphocytes, 37 per cent; hemoglobin 47 per cent; color index, 0.67. The pathologist reported possible malignancy. Wassermann reaction was negative. Urinalysis showed specific gravity of 1010; trace of albumin; no sugar, acetone or bile. Microscopic examination was negative, except for an occasional hyaline cast.

As a suitable donor could not be obtained, a much desired preliminary blood transfusion was not done and therefore a hypodermoclysis of 1900 c.c. saline and glucose was given during the operation. The only pathologic condition found on opening the abdomen was a considerable amount of straw-colored fluid and an enormous mass due to enlargement of the uterus, which was apparently fibromatous in nature. Both tubes and ovaries and broad ligaments were large cystic masses, containing

a thin straw-colored fluid; no enlarged glands or adhesions were found. A regular panhysterectomy was performed and no complications were encountered during the operation.

Macroscopic examination showed a gigantic tumor of the uterus with both adnexa weighing 12 pounds. The tumor was globular in shape, 23 cm. in diameter and completely surrounded by a thin layer of uterine muscularis, measuring 1 cm. in thickness. This muscular layer was easily peeled from the tumor mass which was well defined and largely composed of a yellow friable tissue, an irregular very narrow border zone of grayish and fibrous tissue fused with the yellow tissue in which was found small grayish islands. The cervix was missing. The uterine cavity was greatly distorted, dilated and elongated and spread over the convexity of the bulging tumor mass. A small polypoid body of 3 cm. in length protruded into the uterine cavity from one tube corner. It was covered with thickened mucosa and principally composed of the described yellowish structure. Both ovaries were markedly enlarged, measuring 4 by 3 by 2 cm. and 6 by 4 by 2 cm. Ovaries and tubes were very edematous, the former largely replaced by hyaline tissue.

Microscopic section from the polyp showed a very edematous portion of the mucosa with irregular and dilated glands; the mucosa in other portions was in similar condition. The ovarian tissue showed marked edema, hyaline changes of the stroma, the cortex greatly broadened. The grayish portion of the tumor was largely composed of dense myomatous tissue. The smooth muscle fibres appeared as compact masses without any interstitial tissue. Silver impregnation (Bielschowsky-Marsch) revealed the presence of a uniform net-work of mygolia and meshing, the muscle cells (Van Gieson stain) leaving similar results, with occasional gaps in the muscle containing fat cells. The muscular structures were gradually changing into regular alveolar fat which, in turn, contained small areas of smooth musculature spreading throughout the septa of the fat tissue. In the immediate neighborhood were found large cells with a smooth slightly eosiophilic protoplasm and hyperchromatic round nuclei (lymphoblasts) particularly in Zenker sections.

The diagnosis was benign lipomyoma of the uterus.

SUMMARY

The literature contains little regarding lipomata of the uterus or their symptomatology. Various theories regarding their etiology are discussed. These lipomata are considered benign. Since operation no evidence of metastasis has been observed in the case reported.

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SOMMAIRE

La littérature renferme peu de renseignements sur les lipomes de l'utérus et sur leur symptomatologie. L'auteur discute quelques théories sur leur étiologie. Ces lipomes sont benins. Aucun cas de métastase après ablation n'a été observé.

SUMARIO

La literatura médica es pobre con respecto al estudio de los lipomas del útero. Se discute las diferentes teorias etiológicas de estos tumores. Estos lipomas son considerados como tumores benignos. En el caso decrito no se han observado evidencias de metastasis.

Выводы

Литературные данные о липоме матки скудны. Существуют несколько теорий касательно ее Этиологии. Опухоль как видно доброкачесственна. Метастазы не появились носле операции произведенной автором.

Esser Inlays as a Practical Auxiliary Operation*

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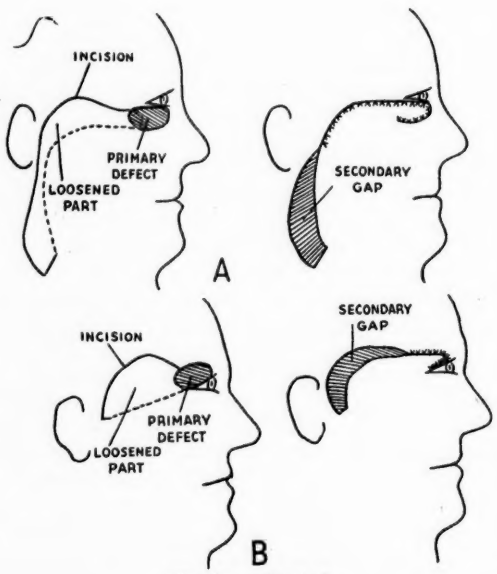
THE procedure for the use of epithelial inlays was first published in 1916 in Germany. Subsequently, it was described in 1917 in America and from time to time in many countries under different names. It is now generally used in plastic and structive surgery or as a free skin graft or mould under the generally accepted term of the "Esser Inlay."

The Esser inlay is used to cover fresh or old wounds or various skin defects with a thin free skin graft or in conjunction with free skin transplants. It may be the principal feature of an operation or supplementary to other operations where it is desirable to avoid an open granulating surface healing *per secundam*. It needs no emphasis that scar tissue is the final effect of all granulations.

I have shown in many reports, based upon twenty-five years of experience, the versatility and usefulness of this method, if properly carried out. A few of its uses are reconstruction of a urinary bladder, ureter, urethra, esophagus, etc. In syndactilism the method renders particularly valuable service.

It is fundamental that the surgeon become versatile in the manipulations of dental compound or stent. A dentist may initiate the beginner into this technic or experiments may be made in modeling of wounds of various forms, shapes and sizes.

*Presented at the Third International Assembly of the International College of Surgeons held in Mexico City, August, 1941.



The Esser Method

New stent is softened by emersion in hot water. No antiseptics are used. It is then applied to the wound with pressure and is permitted to rest on the selected surface for ten minutes, following which it is hardened by means of cold water. The mould is then removed and covered by a thin free skin graft, following which it is replaced on the wound. It must be kept in mind that the raw surface of the graft is to face the wound to be covered. For about a week compression is exerted with an elastic bandage. U-shaped sutures under proper tension may be used, the object being to steady the mould on the wound, to avoid any bleeding or accumulation of secretions between the

transplanted graft and the wound surface. As a general rule, the wound heals in about a week.

Gratifying results have been obtained by the use of the inlay in such urologic conditions as difficult urethral strictures or in the repair of epispadias or hypospadias. In certain gynecologic conditions, such as the construction of a new vagina, the repair of urethral fistulæ, etc., excellent results have been observed. Again, in orthopedic surgery the inlay operation is useful in reconstruction of stumps, operations on the muscles and joints and other pathologic conditions. In dermatologic practice, in radiologic conditions, and in the pathologic entities following tropical diseases, this procedure may be resorted to with confidence. The inlay has proved of great value, particularly in ophthalmologic operations, in stomatology and in rhinology.

Many difficult problems may be solved in general surgery if the inlay procedure is used as an auxiliary operation. Various types of wounds are frequently covered with skin in a week. This is equally true in chronic pus pockets, granulating scars and indolent ulcerations, after excision to make fresh wounds. Defects of the mucous membranes, serous or other membranes can be healed by the inlay procedure.

I have stressed the versatility of this method as an aid in the formation of an artificial anus. It should be stated that in facial defects or in injuries of the limbs, the exposed surfaces should at once be covered with skin in order to obtain dry aseptic surfaces for subsequent interventions and to avoid scarring, particularly in the small muscles of the hands where scar formation, the result of prolonged granulation, creates much havoc. The immobilization of the parts by the inlay frustrates infections or complications even in infected wounds, when the viability of the cell structures is not interfered with by disinfectants. We have never encountered serious infections during the use of the inlay.

In Case I, a man of 26 lost his nose as a result of twenty years of suppuration. The soft structures as well as the skeletal framework were destroyed. Formation of a nose had not been attempted because of a persistent frontal sinus fistula which was suppurating and because of the threatening appearance of the right canthus of the eye. In cases of this type, known as "disk face," an inlay is made, beginning from the fornix in the mouth, in a wound separating the central facial skin including the affected nose, which is detached from its bony framework as far up as the orbits. A fist-sized pocket results. A skin graft enveloping the mould is inserted into the pocket. Two stout U-shaped wire stitches over gauze tampons press the inlay against the large wound surface and are permitted to remain *in situ* for a week, after which a large gauze tampon replaces the mould. Later, a light wire apparatus shaped to the desired form to replace the skeleton of the nose is fixed to the front teeth. This may be permitted to remain or be replaced by a free graft of costal cartilage in a manner I described and introduced during the first World War. Plastic corrections are made as desired to replace the alæ of the nose or other parts needing adjustments by pedicled flaps. However, the inlay procedure is the keynote of the operation (Figs. 1 and 2).

In Case 2, a nose was first fashioned from the structures of the forehead using an Esser biologic frontal flap. This flap contains in its pedicle nerves, lymph and blood-vessels but no skin. In the beginning the cartilaginous skeleton of the nose is placed under the skin of the forehead. Some weeks later, an inlay is made behind, between the periosteum and bone, to procure skin at the inner side of the future nose and also on the bone of

the forehead. This is done in such a manner that after about two weeks, when the nose is turned to be placed at its normal site, no open wound remains on the forehead. Corrections are made later (Figs. 3 and 4).

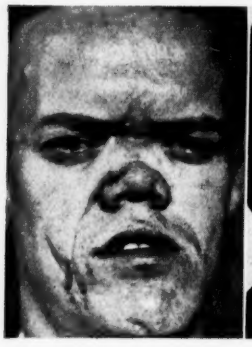


Fig. 1. Photograph of patient with suppuration of nose of 20 years' duration before operation.

Fig. 2. Photograph of patient after operation.

In Case 3 the lower lip, the chin and the middle of the mandible were removed elsewhere for carcinoma. Intensive radium treatment destroyed the vitality of

Fig. 3. Photograph of patient before operation.

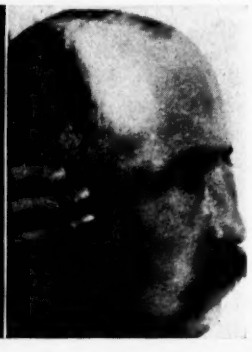


Fig. 4. Photograph of patient after operation, using biologic frontal flap.

the wound and both cheeks. Attempts that had been made to cover the defect with flaps from the thorax failed. The patient came to me in this condition. An inlay was first made on his skull between the periosteum and bone. A biologic temporal flap was transported and made to replace the lower lip and chin. The deep pocket of skin now resulting behind the chin was filled by a prothesis made

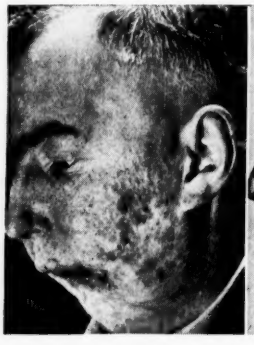


Fig. 5. Photograph of patient with carcinoma of chin before operation.

Fig. 6. Photograph of same patient after reconstruction of lower lip and chin.

by a dentist. It was made to conform to the natural shape of the chin and was equipped with an artificial mandible and teeth. This prothesis was kept firmly in the pocket and steadied by fixation to the molar teeth of the patient who is thus able to masticate with this apparatus. The replacement of the vermilion border of the lip was accomplished by another operation. The biologic flap which forms the patient's new chin and lip contains the original contractile muscular structures and nerves. There is a luxurious growth of hair on his chin and cheeks, which was evident soon after the transplantation. The reason for this is that the pedicles were completely conserved and for that reason are endowed with ample circulation, viability and sensibility (Figs. 5 and 6).

SUMMARY

The "Esser Inlay" is described as a principal and auxiliary operation and its

uses are indicated in plastic and structive surgery. Three cases are reported in which the inlay was successful.

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SUMARIO

El autor describe el "Esser Inlay" como una operación principal auxiliar, y señala sus usos en cirugía plástica y constructiva. El indica las razones para su práctica y los principales puntos de su éxito.

RÉSUMÉ

Le "Esser Inlay," souvent nommés en France "moulage dermique," aussi bien comme opération principale que comme opération compétante est en usage général en Chirurgie plastique et structive. Le "Esser Inlay" est d'un intéret capital pour la solution des difficiles problèmes de la Chirurgie générale et de ses branches comme on peut étudier et voir dans les articles et livres d'Esser.

Выводы

Ессер описывает Ессеровскую Накладку (Инлей) как принципиальную или вспомагательную операцию и ее указания в пластической и строительной хирургии. Автор описывает три случая в которых метода накладки была успешно примененна.

Hematoma Intracerebral por Traumatismo de Craneo*

(Intracerebral Hematoma)

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SUMMARY

The author presents a study of three well-selected cases of intracerebral hematoma, two of which are pathologic studies and the third describes the favorable results in a young man operated on the fifth day. Diagnostic symptoms are discussed, as well as the neurologic signs of localization and the therapeutic considerations.

EL HEMATOMA intracerebral, consecutivo a un traumatismo craneano, es una lesión rara si se consideran sólo los casos de lesiones colectadas y localizades. Lecount admite que se observa aproximadamente en el 1 por ciento de las autopsias practicadas por traumatismos de cráneo. Descartando las formas graves acompañadas de contusión encefálica intensa, con hemorragias profusas, que llevan rápidamente a la muerte, quedan las formas circunscriptas, únicas accecibles a un tratamiento con probabilidadas de éxito. De los 3 casos que presentamos a continuación pertenece el 1° a la Clínica del Prof. Domingo Prat; el 2° nos fué cedido por el cirujano del Bureau del M.S.P., Dr. Fernando Etchegorry y el 3° fué estudiato y operado por el Dr. José P. Otero.

PRIMER CASO

R.R.M., 51 años, uruguayo, casado. Estando perfectamente bien de salud, durante una discusión en la calle, recibe un golpe de puño en la cara que provoca su caída hacia atrás. Queda en el suelo sin conocimiento. Los familiares refieren que después del accidente fué trasladado a su domicilio donde recuperó el conocimiento. Después de 3 horas se queja de malestar, instalándose simultáneamente obnubilación progresiva. El paciente ya no deglute los líquidos. Se reseulve hospitalizarlo.

Cinco horas después del traumatismo, llega al hospital en coma profundo. Desviación conjugada de la cara y de los ojos hacia le derecha. Estos últimos están animados de un lento movimiento de vaivén horizontal. Protusión ligera del ojo derecho, sin equimosis palpebrales ni conjuntivales. Contractura de los músculos faciales derechos, que hace resaltar más aún la parálisis facial izquierda. Pequeña equímosis frontoparietal derecha. ematoma parietal derecho, de 5 cms. de diamétro, situado a 2 traveses de dedo de la línea media; se palpa otro más pequeño en la región occipital, también paramediano derecho. La movilización de la nuca ofrece una resistencia moderada. No sale sangre

*Presented at the Third International Assembly of the International College of Surgeons held in Mexico City, August, 1941.

por ninguna de las cavidades naturales. El miembro superior derecho, contracturado en flexión, está animado de un temblor fino. El miembro inferior del mismo lado está contracturado en extensión. Hemiplegia izquierda.

Reflejos tendinosos exagerados; los aquilianos son policinéticos. El signo de Babinski no sale por ninguna de las maniobras. Reflejos cremasterianos normales. Cutáneos abdominales dudosos. Se extraen 800 cc. de orina clara por cateterismo. Respiración profunda, con un ritmo de 22 por minuto. Pulso 96, regular y fuerte. Presión arterial 18½—9 (Vaquez). Temperatura 37 3/5 axilar.

Examen oftalmológico (Dr. W. Isola): Protusión ligera del ojo derecho. Miosis bilateral con ligera anisocoria, siendo la pupila derecha mayor que la izquierda. Fondo de ojo normal. Se intentó medir la presión de la arteria central de la retina (Baillard), pero no fué posible hacerla por los movimientos contínuos de los ojos.

La punción lumbar entre 4° y 5° V.L., en decúbito lateral, da salida a un líquido muy hipertenso, intensamente hemorrágico. Tensión inicial al Claude 74; después de retirar lentamente unos 30 cc., baja la presión a 25. El líquido C.R. extraído contiene 2.550.000 glóbulos rojos por m.m^3.

No mejora el estado del paciente después de la punción lumbar. Tampoco se puede evitar la agravación progresiva suministrando tónicos difusibles, y calentando e hidratando al paciente. El pulso se hace filiforme y se acelera progresicamente, la tensión arterial desciende, la respiración se enlentece y se hace más superficial. Muerte 2 horas después del ingreso al Servicio.

Autopsia practicada por el forense Dr. Rosemblatt: Equimosis y hematoma parietal derecho, paramediano, poco abundante. Otro hematoma más pequeño al nivel de la sutura occipito-parietal derecha. Fractura ántero posterior de la bóveda, paramediana derecha, que va desde el techo orbitario hasta el occipital. Al nivel dé la sutura occipito-parietal se ramifica el trazo para rodear una esquirla irregular de 2 x 3 cms. El periostio presenta algunos desgarros sobre el trayecto de la fractura, por donde asoman coágulos sanguíneos. Levantada la bóveda craneana, queda al descubierto la duramadre, parcialmente desgarrada.

Sobre la zona rolándica se extiende un hematoma que penetra en la masa encefálica. Después de extraído el cerebro, se comprueba que el resto de la caja craneana está intacto. El hemisferio derecho es más ancho que el izquierdo y se achata más sobre la mesa. Extrayendo cuidadosamente el coágulo que cubre la zona rolándica, se nota que se prolonga a través del tejido encefálico hacia la profundidad. Ocupa una cavidad anfractuosa, de paredes irregulares, constituídas en algunos puntos por papilla cerebral. El resto del cerebro y el cerebro son de aspecto normal. Se vuelve a colocar el coágulo dentro de su cavidad para fijar la pieza en formol. El tamaño del hematoma era un poco mayor que el de un huevo de gallina.

Llama la atención en este caso, la magnitud de las lesiones craneo-encefálicas, con lesión simultánea de la bóveda, de las meninges y del encéfalo. Estas lesiones no se instalaron bruscamente. Lo atestigua la existencia de un período lúcido de algunas horas. No fué posible establecer el orden de aparición y la progresión de los signos focales, dado que el paciente careció de asistencia médica hasta el momento de su traslado al hospital. Cuando fué examinado por nosotros, existía y una hemiplegia izquierda asociada a una hemi-contractura derecha, con desviación conjugada de la cabeza y de los ojos hacia la derecha.

No se pudo observar, por haber sido quizá fugaz, el síntoma que sería, según

ciertos autores, primordial del hematoma intracerebral: el déficit limitado, como ser una parálisis facial o una monoplejia.

El valor elevado de la raquimetría se debía evidentemente a la magnitud de la hemorragia. La numeración de los glóbulos rojos contenidos en el L.C.R. lo confirmó.

SEGUNDO CASO

M.N. 30 años, uruguayo. Ingresa en estado de coma profundo. Como antecedentes se informa que estando de espectador en un partido de basket ball sufre una caída cuya causa se ignora. Corto estado lipotímico, luego recupera el conocimiento y va a su casa. Aproximadamente una hora después entra en coma. No se pueden obtener datos del estado de salud anterior del enfermo.

Examen clínico, practicado por los Practicantes de guardia Brs. Correa y Aguirre: Estado de coma. Respiración estertorosa. Pulso 75. Apirexia. Presión arterial 16-10. Dilatación pupilar izquierda. Ambas pupilas reaccionan a la luz. Ligera espasticidad de los miembros derechos, predominando en el inferior. Reflejos tendinosos exagerados en ambos miembros inferiores, pero más del lado derecho. Babinski bilateral. No hay clonus de los pies ni de las rótulas. No hay signos meníngeos. Punción lumbar en decúbito lateral: líquido claro, con gran hipertensión que eleva la aguja del manómetro de Claude al máximo. No se retira líquido. Una hora después la respiración toma el tipo de Cheyne-Stokes, persistiendo el cuadro anterior. Luego de la punción desaparece la midriasis izquierda, quedando uno ligera dilatación pupilar bilateral. Se indica nueva punción lumbar en decúbito lateral, pero el enfermo fallece al iniciarse la maniobra.

Autopsia y estudio anátomo-patológico, realizados por el Br. Médoc: el examen de la cabeza no revela alteraciones en los tegumentos ni en la calota ósea. No se encuentran trazos de fractura ni lesiones meníngeas ni focos hemorragicos. Extraído el cerebro, se comprueba que el hemisferio izquierdo es mucho más voluminoso que el derecho, especialmente el lóbulo occipital, que sobrepasa al del lado opuesto en 4 cms. Su consistencia es blanda, casi fluctuante en la cara superior. Las circunvoluciones aparecen ensanchadas y aplanadas.

Se hacen cortes frontales según Pitres. No se encuentra sangre en el acueducto de Sylvio ni en el 4° ventrículo, ni tampoco lesiones bulbares, protuberanciales ni cerebelosas. Por detrás del corte de Charcot hay marcado edema cerebral en el hemisferio izquierdo. Al llegar al lóbulo occipital aparece un gran foco hemorrágico, saliendo songre líquida en abundancia. Existe allí una cavidad fraguada en la sustancia blanca, que no comunica con los ventrículos. No hay sangre en los ventrículos, ni se aprecian alteraciones vasculares.

Después de fijado el encéfalo, se estudia la cavidad que mide 63 mm. de altura 34 mm. de ancho y 76 mm. en sentido antero-posterior (Fig. 1). En el sitio donde las circunvoluciones están más aplastadas, la pared externa solo tiene un espesor de 2 mm. aunque en el resto mide más de 15 mm. Vista por dentro, la pared aparece irregular, con algunas entrantes y salientes, revestida por una película fina de fibrina de color grisáceo y algunos restos del coágulo.

El estudio microscópico se realizó mediante las distintas técnicas de coloración, revelando éste la destrucción de la sustancia nerviosa por la dilaceración sanguínea. En la pared del hematoma se observa:

1° Congestión de los pequeños vasos y capilares con hemorragias perivasculares (Figs. 2 y 3).

2° Gran infiltración edematosa, que tumefacta las fibras nerviosas y las células de la glía (macroglía). Estas lesiones disminuyen gradualmente

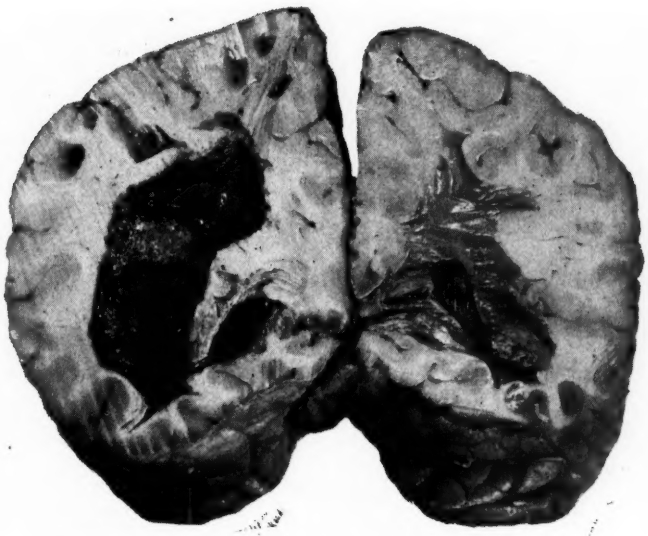

Fig. 1. Hematoma del hemisferio izquierdo. Corte transversal pasando cerca de la extremidad posterior del ventrículo lateral. Vista pósterio-anterior.

hacia la corteza, conservando ésta intacta su estructura neuronal (Fig. 4).

3° Las técnicas selectivas del pre-colágeno y reticulina no muestran fibrilla alguna, no habiéndose iniciado el proceso reaccional de reparación.

4° La pared de la cavidad es, pues, la misma substancia cerebral, congestionada, infiltrada, dilacerada en parte y recubierta por depósitos de fibrina y de sangre.

En resumen, se trata de una hemorragia intra-cerebral, parenquimatosa, localizada en el espesor de la substancia blanca, consecutiva a un traumatismo de cráneo sin fractura ni herida meníngea. La localización en el polo occipital no es la habitual de la hemorragia médica que tiene lugar en la arteria lentículo-estriada y sus ramas. El estudio microscópico revela que se trata de una hemorragia reciente, por los caracteres y el foco mismo y por la ausencia de todo fenómeno reaccional de organizacion tisular. No ha sido posible encontrar el origen del foco hemorrágico, ni se pudieron apreciar alteraciones vasculares.

TERCER CASO

Este enfermo que fué estudiado y operado por el Dr. José P. Otero se distingue de los otros porque siendo un hematoma más pequeño, permitió que el enfermo fuera sometido a una intervención quirúrgica con curación consecutiva.

A.P., 18 años, sufre un traumatismo directo de cráneo con hundimiento de 3 cms. de diámetro, situado en la región parietal izquierda; obnubilación; no hay signos focales. Operación: Dr. José P. Otero. Con anestesia local se extirpa el fragmento óseo hundido. No hay hematoma extradural. Incidida la dura no se constata coágulo subdural pero sí un foco de contusión cerebral. Evolución: Continúa en estadó de coma vigil con tendencia a acentuarse. En la mañana del 5° día está en coma profundo, presentan-

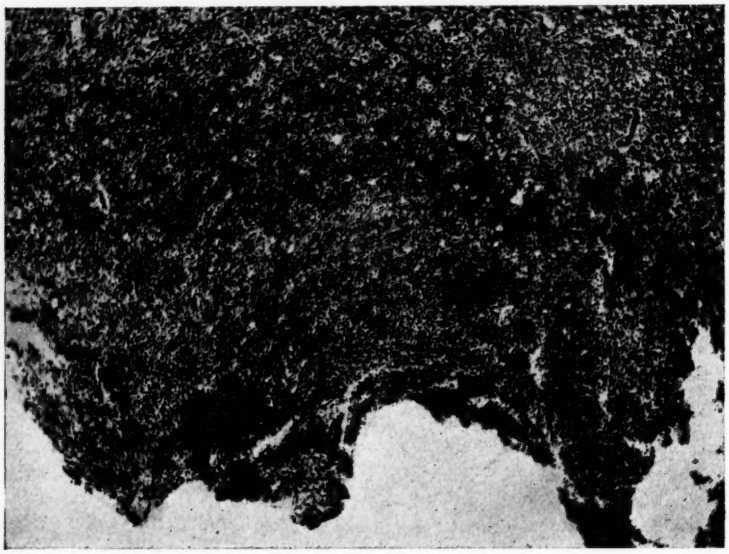

Fig. 2. Vista topográfica de la pared del hematoma. Hemorragia en capa hacia la cavidad. Hemorragia intersticial de la substancia blanca. Edema y congestión de los pequeños vasos capilares. Ausencia de organización y de cápsula de enquistamiento.

do una paresia facial y del miembro superior derecho.

Segunda operación: se abre la herida y se cortan los puntos de sutura de la duramadre. Cerebro tenso de color negruzco. Se punciona con aguja, extrayéndose sangre y sobre su trayecto se hunde el bisturí. Evacuación de coágulos y de tejido cerebral con un chorro suave de suero fisiológico inyectado por medio de una sonda de Nélaton. El hematoma, de límites imprecisos, era del tamaño de una ciruela grande. Tubo de drenaje fino. Luego siguió en coma durante varios días, pero después empezó a mejorar progresivamente. A los 2 meses de su ingreso fué dado de alta completamente curado.

Un mes más tarde lo dejamos de ver por encontrarse completamente cano, no habiendo quedado el menor déficit funcional.

No hemos podido encontrar una descripción de conjunto de la anatomía patológica de estas lesiones. Ensayaremos de ordenar su estudio, considerando:

1° Estado de las meninges y del encéfalo durante las intervenciones quirúrgicas, es decir, lo que ve el cirujano al operar un hematoma intracerebral.

2° Estudio macroscópico de los cerebros durante la necropsia.

3° Lesiones histológicas del encéfalo, de los vasos, etc.

1° Lo que se ve durante la intervención: Lauwereyns (M.J.), en una herida de bala que perforó el cerebro desde la región temporal derecha a la izquierda, encontró la duramadre temporal izquierda de color normal, pero sin latidos y al parecer tensa. Punción aspiradora que da a 25 mm. de profundidad líquido sero-hemático negruzco. Tomando como guía la aguja se hunde una sonda acanalada que deja salir 20 cc. de sangre. Poco después, el cerebro vuelve a latir.

Moulonguet (M.P.). Una bala de fusil roza la región parietal izquierda sin pro-

vocar fractura. Parálisis inmediata de la mano derecha y paresia del resto del miembro durante los días siguientes, sin pérdida de conocimiento. Trepanación: hematoma extradural de 2 cc.; duramadre rígida y tensa. Seccionada, deja ver una circunvolución cerebral edematosa, turgente, con vasos piamarianos congestionados. La punción al bisturía de esta

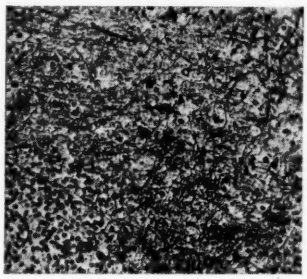

Fig. 3. La misma preparación anterior. Vaso ingurgitado de glóbulos rojos y hemorragia perivascular.

circunvolución deja salir líquido sanguinolento con materia cerebral. Sutura de la dura. Post-operatorio normal.

Cushing: Caída de bicicleta, estado subcomatoso, hemiplegia derecha, hipertensión craneana. Trepanación a izquierda; circunvoluciones cerebrales aplanadas; se hunde una sonda a 4 cms. de profundidad, saliendo 2 cucharadas de sangre y coágulos. Mejoría inmediatá, pero deceso al 2° día.

Heusner trepanó una niña 14 días después de una caída seguida de paresia sensitivomotriz, hallando huesos intactos, duramadre tensa, cerebro tumefacto y rojizo. A 2 cms. de profundidad se encuentra líquido rojo-negruzco. El cerebro recobra su forma. Curación completa.

En el caso de Jeannel había lesión encefálica por contragolpe. Exploración infructuosa del lado del traumatismo, después del lado opuesto, en el sitio correspondiente a los signos focales. Vasos piamarianos túrgidos; punción con sonda y evacuación de un hematoma, situado debajo de una circunvolución distendida.

Biérent (M.P. en un caso de obnubilación, cefalea intensa y parálisis facial derecha, con dificultad para hablar, síntomas aparecidos recién 7 días después de una caída de bicicleta, observó en la fosa temporal derecha que la duramadre estaba tensa y no latía. La punción dió a 4 cms. de profundidad líquido hemático franco. El cerebro recobra progresivamente su aspecto normal y vuelve a latir.

Moulonguet distingue además el grupo de hematomas por penetración intracerebral ya sea por cuerpo extraño o en relación con una fractura de la bóveda. Siguiendo el trayecto de una horquilla, cae en pleno tejido encefálico sobre un hematoma del tamaño de un huevo de paloma. En otro caso de igual etiología, se encuentra en medio de la colección sanguínea la punta del objeto vulnerante. El hematoma puede infectarse secundariamente, previo enquistamiento (J. L. Petit, Kocher, Vibert, etc.).

La irrupción de la sangre del hematoma en los ventrículos laternales puede hacerse rápidamente, en pocas horas, o recién días o semanas después del accidente. Esto depende evidentemente de la magnitud del derrame sanguíneo y del estado de la pared del hematoma.

2° Estudia macroscópico del cerebro.

Caso del Prof. D. Prat (4): "Al abrir el cráneo se encuentra la superficie del hemisferio derecho, en su parte pósterosuperior, con una zona roja de sangre, que ha proyectado las meninges y que hace saliencia al exterior. Se incinden las meninges y se extrae un coágulo que se ha exteriorizado por un orificio del hemisferio cerebral derecho y que rellena una cavidad intra-cerebral del tamaño de una naranja. Orificio de la corteza de 6 cms. de largo, por 2½ de ancho en su parte medio y 4 cms. en su parte

posterior. La cavidad es del tamaño de una naranja, redondeada, a paredes netas y secas y tiene una comunicación pequeña con ventrículo lateral derecho, que está aplastado y con un poco de sangre, traspasada de la cavidad. En el corte transversal de la cavidad se pueden comprobar las enormes dimensiones de la caverna cerebral, el gran desplazamiento hacia adentro de la pared externa del ventrículo lateral derecho y la destrucción del tejido cerebral en la parte ínfero-externa del hemisferio derecho. En el 4° centrículo hay un derrame de sangre líquida y la protuberancia está infiltrada de sangre, con focos hemorrágicos diseminados en la superficie del corte." Las lesiones macroscópicas observadas en nuestros casos fueron descritas más arriba.

3° Las lesiones histológicas del encéfalo en los traumatismos de cráneo fueron objecto de un estudio detallado realizado por Muller, Marchand y Mme. Marchand-Alphand (10). Según ellos predominan en el tejido nervioso hemorragias, más o menos extensas que pueden referirse fácilmente a un vaso, ya sea en la sustancia blanca o en la gris. Otras veces los vasos están como envainados en una zona hemorrágica. El tejido cerebral propiamente dicho parece sano a distancia del foco hemorrágico. Más arriba hemos expuesto detalladamente las lesiones histológicas que encontró el Br. Médoc al estudiar un cerebro con hematoma intra-cerebral de origen traumático.

Tiene naturalmente capital importancia el estudio de las paredes vasculares, pues en último término el hematoma se debe a su ruptura. Esta se producirá más fácilmente cuando hay lesiones anteriores, como ser arterio-esclerosis, ateroma, sífilis, etc.

El diagnóstico del hematoma intracerebral es amenudo difícil. Dada su etiología, es evidente que los otros síntomas locales y generales comunes a todos los traumatismos de cráneo complican el cuadro clínico. Dos síntomas se destacan y conducen, sobre todo cuando van asociados, con frecuencia al diagnóstico correcto:

1° Un intervalo libre relativamente corto, desde algunas horas hasta pocos días. Como excepción puede citarse el caso de Bierént, cuyo intervalo lucido duró 7 días, y el de Vibert que duró 2 meses. En nuestros 3 casos el intervalo libre fué corto, apenas de algunas horas.

2° Síntomas neurológicos de localización, caracterizados por su limitación, como ser una monoplegia aislada o asociada a una parálisis facial, o sólo parálisis facial, etc. El paciente del Dr. Otero presentaba la asociación de parálisis facial con monoplegia braquial. Otro caso nuestro tenía solamente dilatación pupilar del lado de la lesión, pero como fué visto recién en el período comatoso, ignoramos su sintomatología anterior. Además presentaba el signo de Babinski en ambos pies, a pesar de su lesión uni-

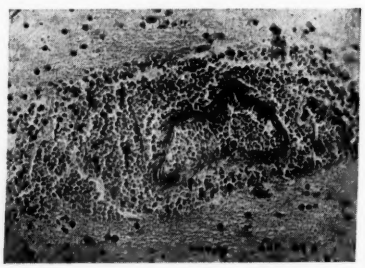

Fig. 4. Microfotografía tomada alrededor del foco hemorrágico. Arriba a la izquierda infiltración hemorrágica. Intenso edema cerebral que ha disociado las fibras de la substancia blanca.

lateral. Nuestro primer caso, también en el período comatoso, tenía hemiplegia del lado opuesto a la lesión cerebral con hemi-contractura del lado lesional.

Moulonguet hizo el estudio de varios casos de etiología, sintomatología y evolución diferentes. Llega finalmente a la conclusión, lo mismo que Prat, que cuan-

do los signos de déficit nervioso "son muy localizados, el diagnóstico de hemorragia intracerebral es casi seguro."

Esto es cierto, indudablemente, para los hematomas pequeños. Pero cuando la colección es grande y cuando por su localización interrumpe la vía sensitivo-motriz, puede dar una hemiplegia.

Cuando los signos neurológicos son más difusos, solo puede sospecharse la existencia del hematoma, y con más razón, cuando no hay signos de localización. En estos casos se está autorizado a recurrir al encéfalografía y a la ventrículografía (Prat).

El tratamiento del hematoma intracerebral es evidentemente quirúrgico. Condiciones previas son el diagnóstico correcto y la localización lo más aproximada posible, para permitir el acceso directo al foco. Como guías más o menos fieles se tomarán los signos focales cuya interpretación es a veces difícil. En muchos casos es aconsejable pedir la colaboración del neurólogo y del oftalmólogo. Esta norma se sigue en nuestro Servicio.

Sabiendo donde está el hematoma se simplifica la intervención y se evitan punciones perjudiciales, pues éstas deben reducirse al mínimo indispensable. Cushing hizo notar el valor localizador que tiene el aplanamiento de las circunvoluciones cerebrales. Prat describe la propulsión regional a segmentaria y la resistencia mayor que ofrece el encéfalo a la palpación frente al hematoma.

Naturalmente no todos los hematomas son accesibles al tratamiento quirúrgico. Sólo las lesiones colectadas, sin otras lesiones encéfalicas importantes asociadas podrán ser evacuadas con probabilidades de éxito. El traumatizado de cráneo es un enfermo frágil que exige maniobras delicadas, realizadas con técnica depurada. Hay que saber elegir la intervención adecuada a cada enfermo.

Para los casos complejos domina una fuerte tendencia abstencionista, aún entre los neuro-cirujanos más experimentados. Cuando el hematoma está bien colectado, el resultado de la evacuación suele ser a veces espectacular, tal como sucedió en el caso de Bierent (3), donde al día siguiente habían desaparecido todos los síntomas anormales. El enfermo del Dr. J. P. Otero tardó varios días en salir del coma, pero se restableció completamente.

SUMARIO

Estudio de 3 casos de hematoma intracerebral por traumatismo de cráneo, bien colectados y localizados. Evolución favorable de un caso de hematoma pequeño, en un joven de 18 años, operado 5 días después del traumatismo. Estudia anatomo-patológico de los otros dos casos. Valor diagnóstico de los diferentes síntomas, especialmente del intervalo libre relativamente corto y de los signos neurológicos de localización. Consideraciones terapéuticas.

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RÉSUMÉ

Etude de trois cas d'hématome intracérébral par traumatisme bien collectés et localisés. Evolution favorable dans une cas de petite collection, chez un jeune

homme, opéré le 5 ième. jour. Etude anatomo-pathologique des deux autres cas. Valeur diagnostique des différents symptômes, spécialement de l'intervalle libre, rélativement court, et des signes neurologiques de localisation. Considérations thérapeutiques.

Выводы

Автор описывает три случая интрацеребральной гематомы. Анатомо-патологические данные описанны в двух, в третьем была произведенна операция у молодого пациента на пьятом дне с выздоровлением. Автор трактует о симптомах, локализации и терании гематом мозда.

RESERVATIONS

Members of the International College of Surgeons and their friends who desire information as to hotel accommodations while attending the Fourth International Assembly in New York City, June 14-16, 1943, may write to

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On the Treatment of Peptic Ulcers (Medical and Surgical*)

MAX EINHORN, M.D., F.I.C.S. (Hon.)
NEW YORK, NEW YORK

PHYSICIANS and surgeons endeavor to alleviate human suffering. When this is possible by means not interfering with the construction of the body — both physicians and surgeons agree such methods should be carried out. If, however, such procedures are not sufficient to produce a cure, surgery steps in and frequently succeed in reestablishing health by removing diseased organs or by instituting new pathways for the continuation of the physiological needs of the organism. In this way physicians and surgeons are not competitors but rather associates in their work of helping human suffering.

In curing disease, nature utilizes repose as one of the best remedies. A rest treatment for peptic ulcer had been devised long ago by instituting rectal alimentation. This mode of healing is very rational. It is, however, often insufficient, as it cannot be kept up long enough and rectal alimentation does not permit adequate nutrition for the body.

In 1910 I began using duodenal alimentation. This method of nutrition can be maintained for a prolonged time and supplies full nutrition to the body. I, therefore, applied this mode of rest treatment of the stomach for various types of peptic ulcers, provided the pylorus is not too greatly strictured and there is *no* sufficient probability of dealing with a malignant process.

Ulcers with large niches often can be made to disappear by this method of treatment in two or three weeks. If, however, there should be no improvement in two or three weeks, the niche not showing a tendency to healing, there is some suspicion of malignancy and then operation is indicated. Again, if the ulcer is near the pylorus and there is lack of hydrochloric acid or the presence of lactic acid with beginning food stagnation, operation is indicated. An ulcer, even on the duodenal side near the pylorus, which has led to considerable obstruction and food stagnation, is also an indication for operative intervention.

SUMMARY

The author advises duodenal alimentation in the treatment of peptic ulcers. With this method of treatment he has had ulcers with large niches disappear in two or three weeks. If the ulcers show no tendency toward healing under this treatment, there is some suspicion of malignancy and operation is indicated. Other indications for operation are if the ulcer is near the pylorus and there is lack of hydrochloric acid or the presence of lactic acid with beginning food stagnation, or an ulcer on the duodenal side with considerable obstruction and food stagnation.

SUMARIO

El autor aconseja la alimentación duodenal en el tratamiento de las úlceras pépticas. Con este método úlceras con nichos grandes desaparecen en dos o tres

*Presented at the Third International Assembly of the International College of Surgeons held in Mexico City, August, 1941.

semanas. En los casos en que no se obtiene mejoría bajo este tratamiento el cáncer se debe de sospechar y, por esta razon, la cirugía es indicada. La cirugía también es indicada en todos los casos que presentan una úlcera en la vecindad del píloro con ausencia del ácido láctico y evidencia de estagnación; o casos de úlcera duodenal con manifestaciones de obstrucción y estagnación ya considerables.

RÉSUMÉ

L'auteur recommande l'augmentation duodénal dans le traitemente de l'ulcère peptique. Il a obtenu la disparition avec ce traitemente de l'ulcère, de grandes niches, dans le cours de deux à trois semaines si l'ulcère soumis à ce traitemente ne montre aucune tendance à la guerrison, il faut soupçonner le cancer et l'opération est indiquée. Il faut aussi opérer si l'ulcère est près du pylore et s'il y a une déficience d'acide lactique avec un commencement de stagnation des aliments ou dans le cas d'ulcère duodenal avec obstruction considèrable et stagnation des aliments.

Выводы

Автор советует дуоденальное кормпление в лечении пептических язв. Язвы с большой нишей заживали в течении двух или трех недель. Если язва при таком лечении не заживает, то нужно подозревать злокачественное перерождение и подвергнуть пациента к операции.

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Ptosis Vesicular Consecutiva a Colecistitis Obstructiva

ENRIQUE LOUP B., M.D., F.A.C.S., F.I.C.S.
LA PAZ, BOLIVIA

SUMMARY

Among the consequences of obstructive cholecystitis are hydrops, empyema, gangrene and perforation, and also vesicular rupture.

If the obstruction is permanent and the hydrops increase without vascular lesions on the vesicular tunica, the result will be dilatation and enlargement and as a result, an increase in weight as the gall bladder exercises traction on the suspensory apparatus, and attachment to the liver which assumes the form of an elongated tongue-like projection, resulting from the migration of the gall bladder, which may occur as far as the iliac fossae. Another factor contributing to a dislocation of the gall bladder and to maintaining it outside its proper location, is the process of adhesions.

The change of location of the gall bladder by obscuring the symptoms may result in diagnostic errors, which occasionally delays the proper location, is the process of adhesions.

The change of location of the gall bladder by obscuring the symptoms may result in diagnostic errors, which occasionally delays the proper time for surgical intervention.

Clinical cases of this clinical condition are presented.

La obstrucción generalmente calculosa del conducto cístico, al producir una retención persistente del contenido vesicular, origina toda una gama de alteraciones que en lo relativo al contenido puedan ir desde el acúmulo de bilis densa, verdi-negra, hasta el empiema, pasando por la hidropesía; y en cuanto al continente, desde la simple distensión, hasta la gangrena y la perforación.

Toda esa diversidad de lesiones es atribuída comunmente a que si la bilis contenía gérmenes patógenos o no; pero mayor importancia parece que desempeña el estado en que se encuentren las paredes vesiculares, al producirse la obstrucción. Así, supuesta una repentina clausura del cístico por un cálculo, en una vesículo aún no alterada, el poder de absorción de sus linfáticos entrará en juego y pronto en vez de bilis se encontrará el líquido claro mucoide que constituye el hidrops vesicular. Si ocurre después un proceso de transudación en virtud del cual el contenido líquido continúa aumentando, las paredes vesiculares, cuyas túnicas conservan su constitución anatómica, responderán con la distensión y el engrosamiento hasta el grado a que vamos a hacer referencia.

Si imaginamos, en cambio, una vesícula de túnicas alteradas, ya por la acción de una bilis demasiado concentrada o por ser presa de una infección microbiana como se acepta por lo general, los disturbios circulatorios no tardarán en aparecer: infarto hemorrágico,

patacones de gangrena, adelgazamiento, hasta acabar en la perforación, lo que a su vez originará la colección enquistada si el proceso defensivo tuvo tiempo para formar adherencias, o lo peritonitis generalizada en caso contrario.

Todo esto ha sido ya estudiado y se tiene claramente establecido. Empero, hay aun otra consecuencia de la obstrucción vesicular, que no por ser menos frecuente debe dejarse sin mención, ya que cobra inesperada importancia desde el punto de vista clínico. Nos referimos al cambio de locación que suele sufrir el reservorio biliar, arrastrando consigo al hígado mismo.

Volvamos a la vesícula cuyo aporte circulatorio y cuyas paredes se mantienen todavía inalteradas, pero en cuya cavidad moran cálculos. Imaginemos que al ser arrastradas por la corriente biliar, repentinamente una de esas piedrecillas es queda enclavada en el lúmen cístico. Tendremos la obstrucción producida e inaugurada la sucesión de fenómenos en virtud de los cuales se va a producir la hidropesía. Probablemente cuando las cosas van a ocurrir como estamos suponiendo, la obstrucción no sea definitivamente absoluta, ya que así la resultante no sería otra que un cuadro agudo. Es posible que al dilatarse el conducto ante el obstáculo, llegue un momento en que se labre un paso por el que escape un poco del líquido retenido, lo que a su vez al disminuir la presión y en virtud de la acción contráctil de las paredes, las haga aplicarse en torno del cálculo, renovándose así la obstrucción. En una palabra, un juego de válvula, cuyo resultado sería la distención lenta y progresiva del reservorio. Otras veces la marcha oclusiva estará a cargo del propio conducto, cuyas paredes por un proceso reaccíonal, irán estrechando más y más su lumen, en tanto aumente el contenido vesicular. De uno u otro modo, el hecho importante es que por obra de tal aumento, la vesícula se distenderá siguiendo a ello el engrosamiento de sus paredes, todo lo cual traerá como consecuencia el mayor peso. Ahora bien, volúmen y peso aumentados, se traducen por tracción ejercida sobre los médios de fijeza de la vesícula al hígado, los que a la larga se distienden en cierta extensión. Empero, como tal envoltura peritoneal que mantiene aplicada la vesícula contra el surco de la cara póstero-inferior del hígado es breve, y además poco laxo y escaso el tejido intermedio, ocurrirá que quién ceda más sea el propio hígado, que en forma de una delgada lengüeta, descienda acompañando a la vesícula distendida, hasta muy abajo. Testimonio de esta migración constituyen las diferentes faces de descenso en que hemos encontrado a la vesícula crónicamente obstruída. En los comienzos, solamente la inicial dilatación con distención; más tarde la relajación acentuada del meso, del que ya cuelga la vesícula, lo que nos permite hacerla bascular con amplitud al practicar la colecistectomía; después, en una fase avanzada, el abandono del cuadrante súperolateral derecho y su ubicación al nivel del ombligo, en el flanco derecho y más abajo aún en plena foss ilíaca. Tal ubicación ectópica de la vesícula puede hallarse mantenida por otro factor, las adherencias que ya mediante el epiplón, ya directamente, va adquiriendo con las otras visceras.

Ahora bien, a las dificultades que con frecuencia rodean el diagnóstico entre una colecistitis obstructiva aguda y la exacerbación de una crónica; entre un empiema y una hidropesía, una perforación que acabe de producirse y una obstrucción aguda, y todavía entre un empiema y un abceso pericolecistico, viene a añadir mayores tropiezos todavía esta mutación o traslado de escenario que vuelve irreconocibles a los actuantes.

Como el tratamiento, sobre todo desde el punto de vista del momento en que se ha de intervenir, está subordinado al diagnóstico, resulta de innegable importancia el poder deslindar una nueva causa de error.

Veamos un caso clínico:

El día 26 de mayo de 1942 un jóven colega me pedía una cama en mi sala del hospital, para una paciente suya que requería ser operada de un *absceso apendicular*. El ataque había comenzado cuatro días atrás; pero ahora que ya el proceso estaba tabicado, creía oportuna la evacuación.

A poco traían a la enferma. Era ésta una mujer de 45 años de edad, algo enflaquecida, que se quejaba de dolor al lado derecho del vientre. Referíanos que su padecimiento había comenzado el día 22 acompañado de vómitos alimenticios y biliares. En un principio la zona afectada habría sido la epigástrica, invadiendo a la derecha y abajo, hasta hacerse francamente acusada en el punto que señalaba, ahora, *la fosa ilíaca derecha*. Al día siguiente, ella misma se habría administrado un purgante, lo que empeoró la situación. Se acusó la fiebre, con diferencia del grado entre la temperatura axilar y rectal, habiendo llegado a 39° y 40° respectivamente. A decir verdad su facies no parecía traslucir suma ansiedad. El pulso era de 105 y la temperatura de 38,4. Su abdómen era el de una multípara, blando y depresible al lado izquierdo, lo que contrastaba con la contractura que aún a la vista se acusaba en el músculo recto derecho. La fosa ilíaca derecha era asiento del máximo dolor. Bastaba posar la mano allí, para que se acusara la defensa. No obstante, palpando con suavidad, podía apreciarse una tumefacción uniforme, lisa, renitente y redondeada, claramente circunscrita hacia abajo, en tanto que perdíase difusamente hacia arriba. Repetimos, en toda esa zona había defensa muscular, pero indudablemente ésta era más pronunciada en el cuadrante inferior derecho. Por lo demás, no había meteorismo que distendiera el abdómen.

El diagnóstico de *"apendicitis"; "absceso apendicular,"* estaba establecido con demasiada fijeza en la mente colega para admitir otros exámenes que podrian acarrear mayores dilaciones. Sin embargo se hizo la cuenta de glóbulos blancos que arrojó la cifra de 7.500.

Decidida la operación, se la llevó a cabo con anestesia raquídea, que proporcionó un magnífico silencio abdominal. Abrió el vientre el colega cón una pequeña incisión de McBurney. Mas ingrata fué la sorpresa al no ver que fluyera pus cuando incindió el peritoneo. Lo que allí se presentaba era una tumoración de consistencia quística, que no vacilamos en identificar como el hígado. Era en efecto una delgada lengüeta de tejido hepático, que recubria un gran cuerpo ovoide, tamaño de una bergamota, conteniéndo líquido a gran tensión: *era una vesícula hidrópica!* Continuada la operación desde ese momento por nosotros, ante todo se desaguó la vesícula extrayendo 885 g. de "bilis blanca." Se siguió practicando la colecistectomía retrógrada como de ordinario. La vesícula mostraba sus paredes considerablemente engrosadas; el cístico lo estaba también.

La marcha post-opertoria fué sin el menor incidente.

El análisis del líquido extraído de la vesícula biliar dió el siguiente resultado. "presencia de albúmina; abundantes glóbulos blancos y piocitos; algunos glóbulos rojos; bacilos Gram-negativo; bacilos tipo Coli."

El informe del laboratorio histopatológico decía: "Vesícula de paredes engrosadas, siendo su mayor espesor de 13 mm. Túnica mucosa: el epitelio recubierto de líquido seroso, está formado de células cilíndricas altas, de protoplasm homogéneo, de núcleos basales. No existe epitelio en las porciones ulceradas de la mucosa, las cuales se presentan en algunas zonas. La lámina propia en algunos sitios presenta los signos de un proceso inflamatorio crónico, con infiltración linfocitoplasmocitaria discreta, y en otros de una inflamación aguda con vasodilatación considerable; infiltación polimorfo-nuclear abundante y micro-abscesos. Túnica fibromuscular: engrosada, desdibujada, siendo irreconocibles sus elementos típicos, y afecta de degeneración múltiple: hialina, mixoide, fibrinoide, etc. En esta túnica se encuentran también los signos de un proceso inflamatorio adudo con los mismos elementos descritos en la lámina propia de la mucosa. En resúmen: vesícula de paredes crónicamente inflamadas y degeneradas, ha-

biendo sobrevenido en ellas, secundariamente, una inflamación aguda de tendencia supurativa." (Dr. José S. Arévalo.)

Poco antes de abandonar la paciente el hospital, se comprobó rentgenológicamente, lo que ya la percusión demostraba respecto al hígado, que se hallaba en sus límites normales. Finalmente, la paciente fué dada de alta en muy buen estado de salud.

Como se vé, a no mediar la ectopia, esto es el traslado a otro escenario del principal actuante, el diagnóstico se habría establecido correctamente desde un principio. Ataque de dolor agudo al epigastrio, acompañado de vómitos; dolor que invade luego y se fija en la vesícula, habría sido claro. Sólo que la vesícula, en vez de hallarse en su sitio, en el cuadrante súpero-lateral, fué a ocupar el del apéndice en la fosa ilíaca derecha! La presencia de la tumoración quística, debajo de una zona de dolor y resistencia muscular, habría llevado a la mente la ides de un empiema o más probablemente de una hidropsía, dada la cifra de 7.500 leucocitos, siempre que la tumoración se hubiese encontrado debajo del reborde costal derecho.

Ciertamente que para interpretarse como un absceso apendicular, que habría habido que suponerlo muy bien emparedado, los cuatro días transcurridos resultaban escasos. Pero en fin, menos probable es también que una vesícula more en la fosa ilíaca. Acaso pueda creerse que la continuación de la matidez hepática sea el fiel derrotero que conduzca al diagnóstico cabal, en tales casos; mas deplorablement no es así. La lengüeta hepática que ha descendido es tan delgada que no puede interferir el timpanismo o sonoridad del intestino subyacente, así como tampoco puede hacerse accesible a la palpación habiendo de por medio la resistencia muscular defensiva.

No sólo en casos agudos puede la migración ectópica vesicular ocasionar falsas apariencias. Basta una mínima defensa muscular para mantener disimulada la continuidad con el hígado que constituiría el dato de seguridad.

Así un segundo ejemplo:

El 14 de septiembre admitía en mi servicio a la paciente C.C.Z., mestiza de 43 años, que contaba la historia de una larga peregrinación por consultorios y dispensarios hasta que ya agotadas sus fuerzas, vino a hospitalizarse. Su padecimiento principal databa de un mes atrás y consistía en un dolor constante en la región del flanco derecho, irradiando a la zona dorso-lumbar; junto con el dolor, había notado la presencia de una tumoración, y como a veces el dolor se exacerbaba con las comidas, fué acostumbrándose a una alimentación muy ligera. En realidad, había anorexia y adinamia. Como antecedentes, refería la paciente que había tenido varias veces ataques de dolor epigástrico, acompañados de vómitos biliosos.

El exámen revelaba ante toda postración, enflaquecimiento, depresión. Pulso 110. Tension arterial 7½ por 6½. En el abdomen aplanado, hacia el flanco derecho, debajo del reborde costal, notábase una tumefacción, indolora, elástica, lisa, redondeada, que no se desplazaba con los movimientos respiratorios y en cambio sí aunque ligeramente, en sentido lateral. La tumoración se perdía insensiblemente hacia la derecha y abajo. En el epigastrio y región del cuadrante súpero-lateral derecho, la palpación despertaba dolor. Entre la matidez hepática y la tumoración se interponía persistentemente una zona de timpanismo. La temperatura con oscilaciones de 36° a 37,8° y aun a 38,4°. Leucocitos 9.800. Orina: urobilina; pigmentos y ácidos biliares; piocitos; cilindros granulosos y algunos hialinos. En los órganos genitales, se encontraba los signos de regresión de las mujeres de edad avanzada, aunque nuestra enferma decía tener sólo 43 años.

Supimos que entre los diagnósticos presuntivos que se le habían hecho figuraban el de *riñón flotante* y el de *tumor fecal*, ninguno de los cuales por supuesto fué confirmado por las radiografías.

Teniendo en cuenta los antecedentes de "varios ataques de dolor epigástrico, acompañado de vómitos biliosos" y que desde un mes atrás se instaló el dolor que ahora le aque-

jaba, radicando en el flanco derecho debajo del reborde costal, donde había una tumoración redondeada y elástica; comprobando todavía que en el epigastrio y cuadrante súperolateral derecho la palpación descubría dolor y resistencia muscular, y añadiendo por último la subictericia de las conjuntivas, con presencia en la orina de pigmentos y ácidos biliares, el diagnóstico de una *colecistitis obstructiva con* su *hidrops consecutivo* no parecía ser ataques, probablemente lo que ocurrió hace algo más de un mes fué que se obstruyó el cístico. Desde entonces el dolor se estableció persistentemente e iba haciéndose notoria la tumoración. Mas, y he aquí en juego la cuestión topográfica, la *su puesta vesícula hidrópica distaba mucho de estar en la zona vesicular.* Y así era en efecto. Estaba demasiado a la derecha y abajo, y todavía no seguía los movimientos respiratorios, ni se continuaba con la matidez hepática, existiendo interpuesta una zona de timpanismo. Por ello, pensaron otros en riñón ectópico.

En fin, con el diagnóstico presuntivo de hidrops vesicular, decidimos la *operación,* la que fué efectuada con anestesia local. La tumoración no era otra cosa que una vesícula biliar que moraba muy abajo y a la derecha, estando sujeta por su fondo a una ancha brida al epiplón. Su volúmen era el doble del ordinario y su espesor tres veces más. Contenía unos 250 g. de "bilis blanca" cargada de mucus, y numerosos cálculos de distintos tamaños. En la zona del colédoco, aun cerca de su desembocadura, había engrosamiento manifiesto. Se dejó un tubo en el canal. En cuanto al hígado una delgada lengüeta había acompañado a la vesícula en su descenso.

Si bien, como se vé una parte del diagnóstico quedaba confirmada, había otra respecto a la cual el exámen histopatológico nos reservaba una sorpresa. He aquí el informe del Dr. José S. Arévalo: "En el fondo vesicular, hay un proceso inflamatorio; vasodilatación y fenómenos de diapedesis leucocitaria. En el bacinete, en la túnica fibro-muscular y parte de la mucosa, hay una neoplasia maligna. El protoplasma contiene lipoides (colesterina); infiltración moderada de linfocitos. Placas de necrobiosis recorren la neoplasia en todos sentidos. En resumen, *cáncer de la vesícula biliar.*"

Asi se explicaba la adinamia, el enflaquecimiento, la anorexia y la hipotensión.

Fuera de los casos, como los descritos, con integridad de las paredes vesiculares, pueden también darse otros de perforación con formación de abscesos pericolecísticos que se manifiestan en zonas distantes de la propia habitual. Si una vesícula hidrópica, en virtud de su aumento de peso y volúmen, ha llegado a descender hasta un sitio que no es el suyo, y si en tal estado la infección transforma en pus su contenido, y la alteración de sus paredes acaba por dar paso a la perforación, el absceso, con todas las apariencias de una tumoración quística, podrá también prestarse a interpretaciones arróneas.

Podríamos citar entre otros el caso de un individuo de 60 años, dispéptico de mucho tiempo atrás, que repentinamente se sintió acometido por violentos dolores y vómitos. Los dolores que comenzaron en la zona epigástrica, invadieron luego y acabaron por fijarse en la región apendicular. Sitio de dolor máximo y presencia de una tumoración, era un punto en el borde derecho del músculo recto, al nivel de la espina ilíaca anterosuperior. Por supuesto que en el lugar de emergencia, en que prestaron al enfermo los primeros auxilios, se estableció el diagnóstico de apendicitis. La intervención comprobó la existencia de un gran absceso, muy bien emparedado, que tenía por techo una lengüeta de tejido hepático y que como testimonio de su orígen exhibió una decena de cálculos de colesterina y bilirrubinato de cal.

Entre los doce casos de perforación con formación de absceso de nuestra última serie tenemos cuatro casos en que el tumor fluctuante o remitente se encontraba fuera del lugar normalmente ocupado por la vesícula biliar. Menos mal que en casos semejantes, el error diagnóstico no tenga, desde el punto de vista del tratamiento, una importancia fundamental. No así en las otras posibilidades como las primero descritas, motivo por el cual creemos que entre las compli-

caciones a que dan lugar las colecistitis obstructivas, debe tenerse en cuenta ésta de la ectopia vesicular.

RESUMEN

Entre las consecuencias de una colecistitis obstructiva: hidrops, empiema, gangrena y perforación, cabe también tener en cuenta la ectopia vesicular.

Si la obstrucción es permanente y el hidrops aumenta, no habiendo lesiones vasculares en las túnicas de la vesícula, la respuesta será dilatación y engrosamiento y como consecuencia aumento de peso. Solicitada por el mayor peso, la vesícula ejerce tracción a sus medios de fijeza y por su intermedio al hígado, que en forma de una delgada lengüeta se distenderá, acompañando a la vesícula en su migración, que puede llegar hasta la fosa ilíaca. Otro factor que contribuye a desviar a la vesícula y a mantenerla fuera de su lugar, es el proceso de adherencias.

El cambio de locación de la vesícula, al desfigurar los síntomas puede inducir a errores de diagnóstico, que perjudiquen la oportunidad de una intervención.

Se refieren como ejemplo, algunos casos clinicos.

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RÉSUMÉ

Parmi les conséquences de cholecystite on mentionne l'hydropsie, l'empyème, la gangrène, la perforation et aussi la rupture de la vésicle. Si l'obstruction est permanente et que l'hydropsie augmente sans lésions vasculaires de la tunique vesiculaire, il en résultera une dilatation et un aggrandissement entraînant une augmentation du poids de la vésicule bilaire. De ceci résulte une traction sur l'appareil suspensoir de l'organe. Il peut en résulter une descente de la vésicule biliaire jusque dans la fosse iliaque une vraie dislocation de la vésicule. Des adhérences parfois s'ensuivent. Des erreurs de diagnostic peuvent déterminer des retards malheureux pour une opération en temps opportun. Des cas cliniques sont rapportés et analysés.

Выводы

В результате обструктивного холецистита может получиться гидропс, емпиема, гангрена и прободение пузыря. При постоянной обструкции, если гидропс увеличивается без сосудистых измерений в тунике желчного пузыря, то в результате получается разширение и увеличение органа. Оттяготевший орган вытягивается в виде продолговатого язычка и может опуститься даже в подвздошную область. Процес сращений также способствует передвижению органа. Эта новая локализация пузыря способна дать повод к неправильному диагнозу.

Другия показания коперации близость язвы к привратнику, отсутствие молочной кислоты, при начинающемся застое или же дуоденальная язва с застоем.

Editorials

The Fourth International Assembly of the International College of Surgeons

THE Fourth International Assembly of the International College of Surgeons, to be held in conjunction with the Eighth National Assembly of its United States Chapter, assumes peculiar significance in this, the second year of our participation in World War II. Members are urgently requested to attend in spite of added transportation difficulties and added duties imposed by wartime conditions.

Representatives of our Good Neighbors, the South and Central American Republics, will be present, both as speakers and delegates, to contribute to the success of the War Surgery and Rehabilitation Program, which is of such vital concern today to each and every surgeon, whether in military service or civilian practice. A symposium on War Surgery headed by the Mexican delegation should prove of especial interest.

Upon all, men in general practice as well as the surgeon, will fall the tremendous task of treating the injuries sustained by the men of our armed forces and rehabilitating the wounded. War today is global in extent. We are fighting from the Arctic to the Tropics. Medically speaking, there is no battle front. Soldiers injured in Alaska are brought by plane to hospitals in Seattle. Men wounded in Africa wake up twenty-four hours later in the United States—the base hospital separated from the front by an entire ocean. Cooperation between the civilian and military surgeon is of greater importance than ever before.

Surgical and medical principles remain the same in peacetime and war—only the conditions under which they are practiced vary. Knowledge gained in control of pain, hemorrhage, shock and prevention of infection, the greatest problems to be met at the Front, is equally valuable to the surgeon in his own operating room. Statistics of accidents sustained during the First Army Maneuvers of October-November, 1941, revealed that 38.6 per cent of the accidents and 83.9 per cent of all deaths were due to motor vehicles—certainly not a uniquely military problem.

Advances made in wartime in first aid, gas poisoning, chemotherapy, transportation of the wounded, burns, anesthesia, eye injuries, shock and hemorrhage, skeletal, internal, brain, vascular and nerve injuries remain to benefit mankind long after the holocaust of war has passed. It therefore behooves every surgeon to acquaint himself with the progress being made.

An adequate rehabilitation program for our injured must be assured now in order that as many as possible of our fighting men may be returned to a useful place in society. The establishment of specialized institutions, such as the

Hines Memorial Hospital at Maywood, Ill., for war veterans following World War I was a step in this direction. However, many more of the mentally and physically disabled remained the problem of men in general practice.

The Assembly Rehabilitation Program covers such widely divergent topics as Plastic and Reconstruction Surgery, Reconstruction Surgery of the Bones and Joints, Physical Therapy and Chronic Diseases Due to War.

Scientific exhibits, which will be presented by various national and state organizations, should prove especially instructive. The New Jersey Rehabilitation Commission will present its curative workshop; bibliotherapy, occupational and physical therapy will be illustrated by the Veterans Administration of Washington, D. C. The Universal School of Handicrafts will present findings in creative rehabilitative activities. An Emergency Field Hospital should interest both civilian and military surgeons.

The imposing list of speakers will make the Assembly of 1943 memorable for all surgeons who wish to acquaint themselves with War Surgery and Rehabilitation. The program has been endorsed by Surgeon General Ross T. McIntire of the United States Navy and Surgeon General James T. Magee of the United States Army, who will be present if their duties permit.

M. T.

A Forgotten Co-Founder of the American Red Cross

THE International Red Cross was created at a congress of delegates held at Geneva, Switzerland, in 1863. In 1868, most of the nations of the world had ratified the principles of the International Red Cross. Although the American Government did not participate officially at Geneva, ratification of the treaty of the International Red Cross by the United States took place on March 16, 1882, due to the efforts of Miss Clara Barton (1821-1912) of Massachusetts. Miss Barton, who devoted her long life to the Red Cross movement, was responsible for the acceptance of the "American Amendment," which established the custom of rendering aid, not only in war time, but also in peace time catastrophes. She was also the founder of the First Aid Department of the American Red Cross. While president of the American Red Cross (1881-1904), Miss Barton combined field work with the work of administration. She possessed great vitality, love for the suffering, clear vision, statesmanship and leadership.

Miss Barton is usually considered the founder of the American Red Cross. However, a number of well known writers state that Adolphus S. Solomons was a co-founder of the organization, with Miss Barton. Mr. Solomons (1826-1910), a native of New York City, moved to Washington, D. C., where he became one of the most distinguished citizens of the capital, a friend of the presidents from Lincoln to Theodore Roosevelt, and a philanthropist of note. It is stated that the organization of the Associated Charities was projected at a meeting held in Solomons' home in April, 1881, and a month later, at another meeting in the same place, the American Association of the Red Cross was organized. Solomons served for twenty years as a vice-

president and at one time was its treasurer.

David R. Barlee wrote in the *Washington Post,* March 13, 1932, "Mr. Solomons was the moving or motivating spirit of the enterprise . . . He was constantly giving support to various organizations formed for the relief of mankind . . . When Clara Barton launched the first Red Cross Society, Mr. Solomons was at her right hand and his name was signed to the application for the first charter."

In 1884, President Arthur appointed Miss Clara Barton, Hon. Adolphus S. Solomons and Judge Joseph Sheldon to represent the United States at the International Red Cross Congress in Geneva. Mr. Solomons was elected vice-president of the Congress and addressed the Congress in behalf of America. His experience, influence and efforts materially helped in advancing the influence of this, the most humanitarian organization in the world.

At the time of the Spanish-American war, the American National Relief Committee was established in New York City. Mr. Solomons was active in the organization, was elected one of the five original members of the New York Executive Board, and served as a member of the Supply Committee.

At the beginning of the twentieth century, he helped to settle a controversy that arose in the American Red Cross. He was one of twelve citizens who presented a petition to the 57th Congress in 1903, asking for reorganization of the American Red Cross. As a result, the Society was put on a sound financial basis and the President of the United States was made the President of the American Red Cross.

Miss Barton, one of the greatest of American women, worked tirelessly to help the sufferers in war and in peace time. Her name will be remembered as a benefactor of mankind. Together with her, credit should also be given to Adolphus S. Solomons, a great American philanthropist and communal leader, who helped to bring the American Red Cross to its present service and success.

S. R. Kagan, M.D.

The March of Time in Surgical Organizations

THE first legal status of surgery was suggested in Babylon 2200 years before Christ when Hammurabi drew up a code regulating the exact fees that a surgeon was to receive for certain operations. In 931 A.D., the Caliph appointed Humaid as Court Physician to establish the first Board of Examiners and issued a Royal Degree forbidding the practice of medicine except by those authorized by the Board.

In 1224, Emperor Frederick II signed an edict requiring the study of logic for three years, medicine and surgery for five years and assistantship to a physician for one year before examination to practice medicine. To practice surgery, the candidate returned to medical school for an additional year of study in anatomy and surgery, then served one year as apprentice to a surgeon, before being examined in surgery. During the sixteenth and seventeenth centuries, university students received their bachelor and master degrees in seven years, after which time they might register in a pro-

fessional school of theology, medicine or law for another four to seven years' training.

In the seventeenth century the earliest experimental work began when Giuseppe Zambeccari, in 1680, performed on dogs most of the abdominal operations we perform today on humans. The experimental surgery of John Hunter, Lord Lister and W. S. Halsted made surgery an exact science.

Duke Federigo Cesi in 1601 organized the Academia dei Lincei in Rome. The Academia del Cimento of Florence was organized in 1657 by nine scientists, who gave ten years of united effort to experimentation and published their results as a single individual. The Royal Society in England was founded in 1662 for the purpose of reporting experimental work. These organizations were followed by the Royal Academy of Science in France, 1666, the Berlin Academy of Science, 1700, the American Philosophical Society, 1743, and the National Academy of Science, 1863. Scientific societies devoted to surgery had their beginning with the Royal College of Surgeons, 1610, the French Academy of Surgery, 1731, the Mexican Academy of Surgery, 1735, the Italian Academy of Surgery, 1780, and the American Surgical Association in 1879.

The first International Congress of Medicine was held in Paris in 1867. The function of the scientific society in the seventeenth century was twofold: (1) the creation of laboratories and encouragement of original work; (2) the publishing of periodic news of work done by scientists under its auspices and the work of other learned men. During the past two hundred years, scientific societies have been the watchdogs of the universities; they have dictated the minimum standards of undergraduates, graduate and postgraduate requirements for degrees. The value of research in the quality of teaching in medical schools has been definitely shown. (Casey—Science, July 31, 1942.)

In 1875 at Belleview Hospital, Abraham Jacobi sowed the seed of scientific medicine in the mind of a young intern, William Henry Welch, who became the Father of Scientific Medicine in America. Welch as a young scientist realized the great value of the scientific societies and through his original contributions and those of his graduate students lived to see America become the medical Mecca of the World. This was achieved by the creation of laboratories, libraries, clinics and scientific societies. Professor Welch in his Presidential Addresses before the American Medical Association, the American Association for the Advancement of Science, the American Association of Pathologists and Bacteriologists and the Association of American Physicians, created the scientific spirit which we must preserve.

While Rock Sleyster was President of the American Medical Association and a member of the Board of Regents of the American College of Physicians he brought together for the first time the Board of Trustees of the American Medical Association and the Board of Regents of the American College of Surgeons, for a common understanding in the division of the work necessary to maintain the medical profession at its highest level.

The future welfare of the young surgeon in the Armed Forces of the United Nations has received proper recognition by the International College of Surgeons through the appointment of a Faculty in 1942 for postgraduate teaching in each of the Allied Countries. The objective of the International College of Surgeons, written in 1935, to "make pro-

vision for postgraduate study through the International Credentials of the College" and to arrange "with medical schools and teaching hospitals for postgraduate study courses," aspires to cooperate with all other existing Colleges and surgical organizations.

In 1943, the American Medical Association, the American College of Surgeons and the American College of Physicians joined hands in this important work under the direction of Drs. Alfred Blalock, A.C.S., W. B. Breed, A.C.P., and E. L. Bortz, A.M.A., Chairman.

World War II is a challenge to education. The responsibility is ours; it is evident that we will again have the pseudo-specialist, and only through a sane leadership will humanity receive the benefits of scientific endeavor and a country worthy of the name Democracy. We shall do our best work, only if we learn to work with other countries rather than to impose our ideas upon them, recognizing fully their different cultural levels and traditions.

With the accelerated program of teaching we should consider whether it will not be a miscarriage of justice to reduce the undergraduate training of doctors below six calendar years.

W. J. Carson, M.D.

VISIT THE SCIENTIFIC AND COMMERCIAL EXHIBITS

Fourth International Assembly

International College of Surgeons

Waldorf-Astoria Hotel

June 14-16, 1943

Chapter Activities

Mexican Chapter Entertains President of the Republic of Costa Rica

His Excellency Señor Doctor Don Rafael Angel Calderón Guardia, F.I.C.S. (Hon.) President of the Republic of Costa Rica, National Regent and Honorary President of the Costa Rican Chapter of the International College of Surgeons.

ON the occasion of the visit of His Excellency, the President of Costa Rica, Doctor Don Rafael Angel Calderón Guardia, F.I.C.S. (Hon.), Honorary President of the Costa Rican Chapter of the International College of Surgeons and its National Regent, a committee composed of Drs. Manuel A. Manzanilla, F.I.C.S. (Hon.), International Vicepresident and National Regent, Gonzalo Castañeda, F.I.C.S. (Hon.), National President and Regent, Miguel López Esnaurrízar, F.I.C.S. (Hon.), National Regent, Francisco Fonseca García, F.I.C.S. (Hon.), National Secretary, arranged an extraordinary session of the Mexican Chapter for their distinguished guest. The session was held on March 9 at 3:00 P.M. in the *Salon de Actos* of the Faculty of Medicine of the National University of Medicine of Mexico.

Dr. Don Gustavo Argil, Director of the Faculty of Medicine of the National University, delivered the address of welcome. Dr. Don Gonzalo Castañeda, President of the Mexican Chapter of the International College of Surgeons, gave the official address. Dr. Don Víctor Fernández Manero, F.I.C.S. (Hon. Causa), Chief of the Department of Public Health of Mexico, participated. Following the addresses, a reception was tendered the distinguished guest in the *salons* of the Casino Militar. A number of dignitaries attended this function.

Academicians, Fellows and Members of the Mexican Chapter of the International College of Surgeons and numerous invited guests filled the *Salon de Actos* to capacity. Guests besides those mentioned included Doctor Don Mario Quiñones H., who represented Doctor Don Víctor Fernández Manero, Lic. Don Alberto Echandi Montero, Secretary of Foreign Relations of the Republic of Costa Rica, Don Carlos Jinesta Muñoz, Minister of Costa Rica in Mexico; Lic. Don Mariano Armendáriz del Castillo, Chief of Protocols of the Secretariat of

Doctor Don Rafael Angel Calderón Guardia, President of the Republic of Costa Rica, National Regent and Honorary President of the Costa Rican Chapter of the International College of Surgeons, reading his discourse. At his right are Doctor Mario Quiñones H., representing Doctor Don Víctor Fernández Manero, Chief of the Department of Public Health and Doctor Don Gonzalo Castañeda, President of the Mexican Chapter of the International College of Surgeons; at the left are seen Doctor Don Gustavo Argil, Director of the Faculty of Medicine of the National University of Mexico, and Lic. Don Alberto Echandi Montero, Secretary of Foreign Relations of the Republic of Costa Rica.

Foreign Relations in Mexico, and Doctor Don Darío Fernández Fierro, Vicepresident of the Mexican Chapter of the International College of Surgeons.

Sesión Extraordinaria del Capítulo Mexicano en Honor del Presidente de la República de Costa Rica

El Capítulo Mexicano del Colegio Internacional de Cirujanos, efectuó una sesión extraordinaria en el Salón de Actos de la Facultad de Medicina, Universidad Nacional de México, a las 15 horas del día 9 de marzo, para honrar al Señor Doctor Don Rafael Calderón Guardia, F.I.C.S. (Hon.) Presidente de la República de Costa Rica, Regente Nacional y Presidente Honorario del Capítulo Costarricense del Colegio, de visita en la capital mexicana por invitación oficial del Señor General de División Don Manuel Avila Camacho, F.I.C.S. Honoris Causa, Presidente de los Estados Unidos Mexicanos.

El severa Salón de Actos de la Facultad se encontraba totalmente lleno por una selecta concurrencia, ocupando los sitiales académicos los distinguidos colegas del Capítulo Mexicano y diversos invitados de honor, y en el estrado los siguientes señores: Doctor Don Rafael Angel Calderón Guardia, a quién se brindó la presidencia del acto; Doctor Don Mario Quiñones H., en representación del Doctor Don Víctor Fernández Manero, F.I.C.S. Honoris Causa, Jefe del Departamento de Salubridad Pública; Doctor Don Gustavo Argil, Director de la Facultad de Medicina; Licenciado Don Alberto Echandi Montero, Secretario de Relaciones Exteriores de la República de Costa Rica; Doctor Don Manuel A. Manzanilla, Vicepresidente del Colegio Internacional de Cirujanos; Doctor Don Gonzalo Castañeda, Presidente del Capítulo Mexicano; Doctor Don Francisco Fonseca García, Secretario del Capítulo Mexicano. Asimísmo, en sitiales inmediatos al estrado los siguientes señores: Don Carlos Jinesta Muñoz, Ministro de Costa Rica en México; Licenciado Don Mariano Armendáriz del Castillo, Jefe del Protocolo de la Secretaría de Relaciones Ex-

teriores de México; Doctor Don Miguel López Esnaurrízar, Regente Nacional del Capítulo Mexicano; Doctor Don Darío Fernández Fierro, Vicepresidente del Capítulo Mexicano.

Al abrirse la sesión, el Señor Doctor Don Gustavo Argil, Director de la Facultad de Medicina, dió la bienvenida en la forma siguiente:

Señor Presidente y distinguido colega:

Bienvenido sea Usted a esta casa, a la que debe penetrar como a su propia Escuela. En este recinto palpita la tradición universitaria más antigua del continente americano. El Real Colegio de Cirugía legó a esta Escuela de Medicina el timbre histórico de primate ilustre, pero la obra de la raza, choque y floración magnífica, es riqueza común en el abolengo fraternal de nuestra América.

Uno de mis primeros actos como Director fué incorporar a su Alma Mater, nuestra Escuela de Medicina, al Capítulo Mexicano del Colegio Internacional de Cirujanos, y uno de los actos más imperecederos de mi gestión será el de hoy, en que Usted, miembro eminente del Colegio, viene a esta casa que es vuestra y la honra con su presencia. Esta ceremonia del Capítulo Mexicano del Colegio impulsa la fraternidad y recuerda, en medio de la homicida violencia que sufre el mundo, nuestro tronco común y nuestro firme destino.

En los venerables cronicones mayas, en los anales del Viejo Imperio, vaga el perfume de las peregrinaciones fraternas que venían de Costa Rica al Mayab. La epopeya de la España conquistadora creó y consolidó la trayectoria universal de nuestros pueblos. En la América independiente, la voz de Bolívar señaló horizontes y apuntó el porvenir. Y ahora, hay un sacudimiento de común afán que aproxima patrias y confunde pueblos, y Usted viene como símbolo de un mañana mejor, misionero de buena voluntad.

Sobre el sitial que nos hace Usted el honor de ocupar en este momento, exalta la imaginación la divisa universitaria "Por mi Raza hablará el Espíritu." Esa raza que se menciona es la vuestra y la nuestra desde antes, desde después y desde ahora. En esta casa, al amparo de la divisa sibilina, alienta juventud costarriqueña.

Bien haya el Capítulo Mexicano del Colegio Internacional de Cirujanos, que nos congrega para honrar a Usted. Bienvenido sea el colega ilustre, cuya presencia es alteza de miras y elevación de sentimientos.

A continuación, el Señor Doctor Don Gonzalo Casteñeda, Presidente del Capítulo Mexicano, pronunció el siguiente discurso oficial:

Señor Presidente y distinguido colega:

Vuestra ilustre persona por su austero continente nos es atractiva y simpática, vuestra Excelencia sin ostentación ni hacer gala de grandeza impone, domina; miro su destacada presencia trifásica: como Jefe de Estado que representa una nación, como hombre que trae el espíritu de un pueblo y como representativo de una cultura, hermosa misión. El Gobierno de la República le ha rendido ya honores como Presidente de un supremo poder ejecutivo, las gentes lo aplaudieron ya como gran costarriquense, el Capítulo Mexicano del Colegio Internacional de Cirujanos en esta ecremonia recibe, vé al hombre, al Fellow, al médico eminente.

Yo quisiera, Señor, haber conocido las ciudades de San José y Cartago, de Heredia y Alajuela, cruzado los bosques de Talamanca, visto los volcanes, los golfos y bahías de esa tierra feraz que pisó Colón, todo para pintar el panorama de su patria y hacerlo sonreir, querría que luciera aquí el escudo y flotara la bandera de Costa Rica para hacerlo vibrar con las emociones de la ausencia, pero ya que no me es dable imaginar con la fantasía y tocar su corazón, llamaré a su pensamiento.

Costa Rica como país autónomo tiene un siglo, su vida como provincia del antiguo reino de Guatemala y como entidad, después, de la República Federal de Morazán está en la historia de Centro América, esta región ístmica contiene episodios de la vida mexicana. En su conquista estuvieron Pedro de Alvarado y Cristóbal de Olid férreos capitanes del conquistador de Anáhuac, por las Hibueras batalló Hernán Cortés y en los primeros años de la Independencia de México aquellas tierras fueron

dominios del efímero Imperio de Iturbide, Agustín Primero.

El territorio costarricense quedó en el Septentrión pero apartado de México, a la nación nos unía la historia colonial y la afinidad étnica pero el barco de vapor no acercó la lejanía de Puerto Limón y Punta Arenas, la confraternidad era oficial, hoy es diferente; nos va a eslabonar la carretera panamericana, el vuelo del aeroplano nos aproxima, la onda de la radio nos funde, llegó un embajador, otro es el porvenir.

La misión de un gobernante no es sólo administrar, es la de estadista que busca además lo intangible e inmaterial de la vida, que pugna porque su país a un brazo fuerte lo anime un espíritu fuerte; la tarea internacional de un Jefe de Estado no es sólo diplomática sino creadora de civismo y solidaridad para que los hombres cumplan y sientan la humanidad. Su viaje Señor Doctor y Presidente trae ese pensamiento, formarle, mostrarle al pueblo de Costa Rica un horizonte terreno y moral más amplio para engrandecerse y volar; su viaje no es de recreo, es el de un patriota que trae nobles y elevados propósitos. Se interrumpe la clínica, descansa el bisturí, otras actividades bullen, otra es ahora la preocupación; que la Suprema Inteligencia lo inspire, que sus virtudes lo alumbren. Todo vibra en torno del éxito, el ánima de los médicos mexicanos más fuertemente.

La nueva liga que se asoma, más apretada y cordial, será económica, más intima en el ideal democrático, ello es trascendente pero no substancial porque lo que en verdad unifica a las naciones no sólo es la política y la comunidad de intereses, sino la hermandad de los pueblos, la fusión de sus aspiraciones y propósitos; la civilización no radica únicamente en la riqueza mundana o en el progreso de lo material de la vida sino también en la concordia de los sentimientos; para que una obra sea fructífera debe animarla el espíritu, y el espíritu está en hombre. La visita de Usted, Señor Doctor y Presidente, trae saludos, también el alma de su pueblo, aquí lo recibe no sólo el protocolo, por igual el alma del pueblo mexicano.

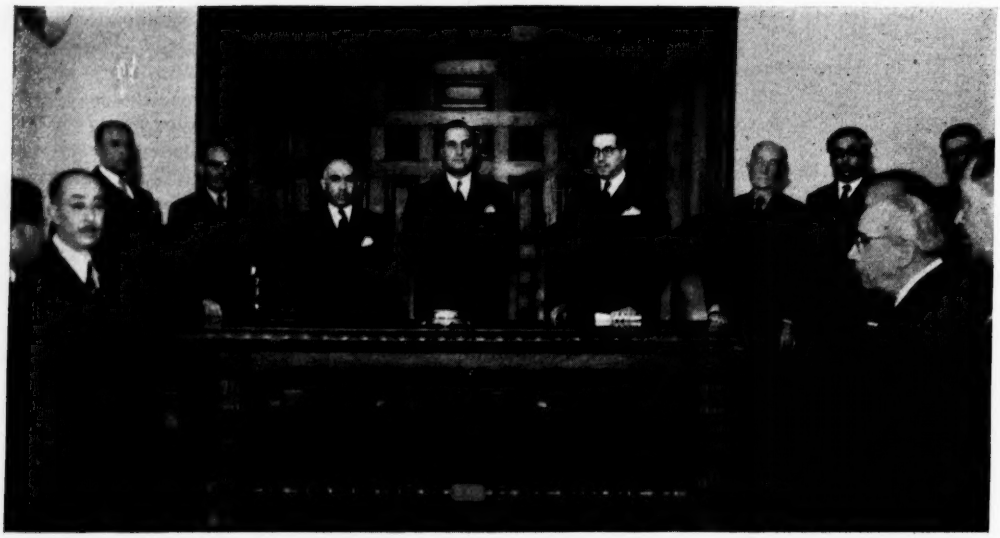
Ciertamente, el viaje a esta Metrópoli de su Excelencia, Señor Doctor Calderón Guardia, como Jefe de Estado, sea como visita oficial de Gobierno a Gobierno a como personal de Presidente a Presidente es cosa magnífica, porque el abrazo de dos representativos es símbolo, es vínculo; su descenso apoteósico en Balbuena rodeado de su comitiva fué hermosa página de Historia; pero yo contempló también y mejor ese suceso como una embajada que nos traía la paz, la amistad y simpatía de un pueblo.

Para los médicos de aquí estos días nos han dicho algo más, con orgullo y emoción hemos visto Presidente a un compañero, hemos mirado como la Presidencia de una República cabe en la Medicina, como esta ciencia del bien es capaz de mandar, y como una cultura universitaria puede involucrar la popularidad que encumbra. El médico está preparado para gobernar porque está educado en la investigación de las causas, la sociología es biología; está Usted en su puesto Señor Doctor Calderón Guardia, la ciencia honra a los Gobiernos.

Otra coincidencia fausta, el Capítulo Mexicano del Colegio Internacional de Cirujanos ha tenido la fortuna de que el ilustre huésped de México, a un elevado cargo oficial acople el título de Fellow Honorario y Regente de ese Colegio, y de que un prócer sea miembro conspícuo de ese Instituto; ya aquí nuestro Supremo Mandatario y el Jefe del Departamento de Salubridad Pública son también Fellows Honoris Causa, galardón como insignes protectores; el nombre y prestigio de Usted Señor Doctor, son una presea de la intelectualidad costarricense.

Como homenaje al Fellow quisimos robarle unas horas para tenerlo aquí fuera de la Cancillería y hablarle con sencillez, para ofrendarle el pan y la sal de la hermandad, porque natural es que se estrechen quienes unidos luchan en la dura brega de una conquista, queremos que esto acto exento de ceremonial no lo ofusquen otros esplendores y que se grabe imborrable en su recuerdo.

Este recinto Señor Doctor, está en la casa colonial que fué prisión del egregio cura Don José María Morelos y Pavón, integérrimo defensor de nuestra Independencia, héroe de la talla de Bolívar, Sucre y San Martín, libertadores de América: estamos



Extraordinary Session of the Mexican Chapter in honor of the President of Costa Rica. Standing from left to right: Doctor Don Francisco Fonseca García, Secretary of the Mexican Chapter; Doctor Don Gonzalo Castañeda, President of the Mexican Chapter; Doctor Don Marion Quiñones H., representing Doctor Don Víctor Fernández Manero, Chief of the Department of Public Health; Doctor Don Rafael Angel Calderón Guardia, President of the Republic of Costa Rica, National Regent and Honorary President of the Costa Rican Chapter of the College; Doctor Don Gustavo Argil, Director of the Faculty of Medicine of the National University of Medicine; Lic. Don Alberto Echandi Montero, Secretary of Foreign Relations of the Republic of Costa Rica; Doctor Don Manuel A. Manzanilla, International Vicepresident of the International College of Surgeons; Don Carlos Jinesta Muñoz, Minister of Costa Rica in Mexico. At the right in the first row: Doctor Don Manuel Márquez Rodríguez, Dean of the Faculty of Medicine of the University of Madrid, and next to him partly hidden by Dr. Rodríguez, Doctor Don Darío Fernández Fierro, Vicepresident of the Mexican Chapter.

en la Facultad de Medicina alma mater de las generaciones médicas, manantial de saber donde también abrevan jóvenes compatriotas de Usted, de aquí llevarán bálsamo para curar dolores de allá, su Excelencia entró hoy al templo donde está su religión.

Señor Doctor Rafael Angel Calderón Guardia, yo por gracia y favor soy Fellow Honorario como Usted, Regente de un Capítulo como Usted, ya que la casualidad me ha subido a la altura de su persona, con ese derecho y autoridad del Colegio y traduciendo el vocablo inglés, quiero en estos momentos llamarlo, mi compañero en la obra, mi amigo en la vida, mi hermano en el saber; me considero afortunado de haberlo conocido, lo saludo y le pido que se lleve mi nombre; lo felicito por haber venido, lo felicito porque volverá a su país, victorioso, sí, como triunfador, porque se lleva el corazón de México.

Cerró la sesión el Señor Doctor Don Rafael Angel Calderón Guardia, dando lectura al discurso siguiente:

Señores
Director de la Facultad de Medicina,
Presidente del Capítulo Mexicano del Colegio Internacional de Cirujanos,
Distinguidos Colegas:

Vuestra hidalguía, que es blasón precioso en el escudo de vuestras tradiciones inmortales, me abre las puertas de vuestra Facultad de Medicina, me colma de elogios que sobrexceden mis modestos merecimientos y me ofrece esta ilustre Casa como mi propia escuela.

Con justeza y exactitud de concepto afirmáis que "a vuestra Escuela de Medicina le fué legado el timbre de primate ilustre y que aquí palpita la tradición universitaria más antigua del Continente"; y es que no en vano sois los depositarios de un maravi-

lloso legado histórico, que amasaron con brazo robusto y espíritu vidente los aborígenes cultos y heroicos y los conquistadores pujantes y civilizadores—unos y otros de talla gigantesca—y sobre el cual, como sobre pétreos cimientos, habéis edificado, en una epopeya que ha demostrado vuestro indómito coraje, este gran Pueblo que ha llegado a conquistar el cariño y la admiración del Continente.

Nosotros los costarricenses no podemos ufanarnos de una tan brillante historia universitaria. Clausurada, por motivos que no hace el caso analizar ahora, a fines del siglo pasado nuestra Universidad de Santo Tomás, sus puertas permanecieron cerradas y sordas al reclamo de una juventud sedienta de cultura, hasta que bajo mi administración volvieron a cobrar vida sus claustros y a poblarse de un batallón de estudiantes, que van allí a abrir los horizontes de su mentalidad y a prepararse para las rudas batallas de la existencia.

El señor Presidente del Capítulo Mexicano del Colegio Internacional de Cirujanos —Capítulo ya incorporado a su Alma Mater, vuestra Escuela de Medicina, habiéndose realizado con ello un verdadero acierto —se refiere amablemente a mi condición de Fellow Honorario y Regente de ese Colegio en Costa Rica. Esta distinción que tanto me honra y que constituye un noble estímulo en los empeños de mi profesión, es una nueva evidencia de que los médicos nos debemos, por sobre los rumbos de cualesquiera otras incitaciones o tendencias, al impulso indeclinable de nuestra vocación.

La creación del Colegio Internacional a que vengo refiriéndome es la centralización del concepto del cosmopolitismo o universalidad de nuestra ciencia, que se propone el remedio o el alivio de la enfermedad y del dolor, flagelos que castigan a la humanidad en todas las latitudes del planeta y que vienen persiguiéndola desde los más oscuros y lejanos días de la prehistoria. Realiza, asimísmo, tal Colegio, el sabio aforismo de que la ciencia—y podemos afirmar que especialmente la medicina—no tiene Patria, por donde quienes a tal disciplina hemos dedicado los mejores afanes de nuestra vida tenemos que sentirnos, más que colegas, hermanos, en la alta y superior fraternidad que busca la salud y la alegría del género humano.

Creo que ha de ser en días como los presentes—pletóricos de lucha y dolor tras la libertad del mundo—cuando como colegiados e individualmente podemos los médicos enaltecer y engrandecer, santificáncola, nuestra profesión. Y ello ha de facilitarse, pienso yo, por medio de la unidad, unidad que en el México de hoy tiene un ejemplo relevante, pues es imposible desconocer que por encima de todas las tendencias, de todos los criterios y de todas las exaltaciones ocasionales, vívense aquí supremas ansias de superación espiritual y material, pero encauzadas enánimemente al engrandecimiento y gloria de México. Y esa es la unidad de que os hablaba.

Los hijos de nuestra América—herederos todos por igual de los insignes atributos de la raza ciclópea que pobló este Continente—abocados al conflicto que conmueve al mundo en cumplimiento de un imperativo de su destino indeclinable, deben fundirse en un apretado haz de corazones y de espíritus; pero como no pueda amarse lo que no se conoce, las patrias americanas deben acercarse; sumar sus inquietudes y sus aspiraciones optimistas; en grandiosa anfictionía como la que soñó el padre Bolívar discutir sus problemas comunes; apagar recelos y malos entendimientos; alzar el estandarte de América toda como la sagrada divisa del porvenir, y declarar suicida y atentatorio contra los intereses permanentes de América, todo intento de discordia o siquiera de alejamiento entre los pueblos que en ella se albergan.

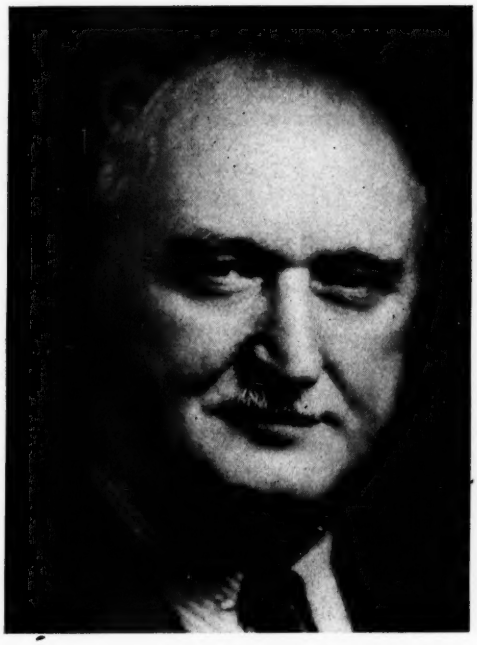
Contribuyen por modo decisivo al fortalecimiento de ese ideal las visitas de los Jefes de Estado a los países hermanos, porque sus conglomerados sociales se ven acercados y unidos en las personas de sus mandatarios. Son estas oportunidades preciosas para estudiar y analizar de cerca multitud de aspectos más o menos ignorados, que interesa conocer a conciencia para el mejor éxito de las tareas de Gobierno; y en ese anhelo de fraternización efectiva de América, el Colegio Internacional de Cirujanos

puede colaborar excelentemente por medio de las distinguidas representaciones con que cuenta en todos los países.

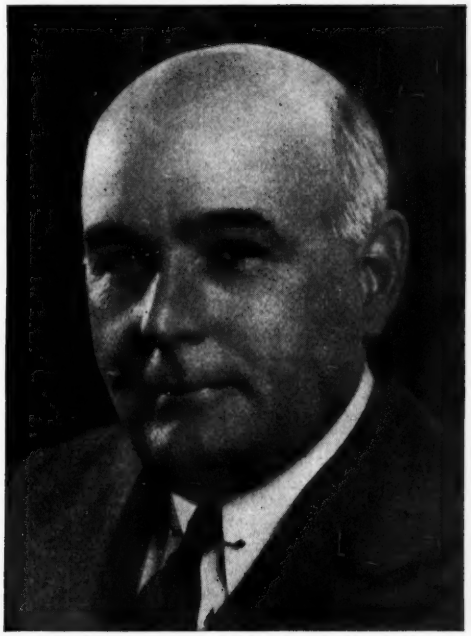
Yo me he referido en varias ocasiones al hecho elocuente de que más de dos centenares y medio de estudiantes costarricenses estudian en los centros docentes de México, especialmente en esta universidad. Pues bien, cuando estos jóvenes, coronadas sus aspiraciones, retornen a la Patria, realizarán el bello emblema de vuestro escudo pues por vuestra raza—la raza americana—hablará y actuará su espíritu, el que forjásteis para ellos, con vuestras sabias enseñanzas, como coraza en la arremetida y como ala en el vuelo.

Al saludaros, con mi más efusiva cordialidad en mis últimas palabras, quiero significaros mi más profundo reconocimiento por los conceptos elogiosos para mi Patria y para este colega que habrá de recordaros siempre.

Terminada la sesión, se hizo un brevo recorrido de la Facultad, cuya descollante arquitectura barroca berniniana enmarcaba dignamente la presencia del distinguido visitante costarricense; se hizo una pausa íntima en la Dirección, admirándose algunas de las valiosas pinturas que posee la Facultad, en particular la gran composición hagiológica de Cabrera que majestuosamente se destaca en lugar de honor; y entre las exclamaciones afectuosas de los estudiantes se retiró el Señor Doctor Don Rafael Angel Calderón Guardia, F.I.C.S. (Hon.) Presidente de la República de Costa Rica, Regente Nacional y Presidente Honorario del Capítulo Costarricense del Colegio Internacional de Cirujanos.



FRED H. ALBEE, M.D., Sc.D., LL.D., F.A.C.S., F.I.C.S.
International President



THOMAS A. SHALLOW, M.D., F.A.C.S., F.I.C.S.
President U. S. Chapter

TO THE MEMBERS OF THE MEDICAL PROFESSION OF THE UNITED STATES OF AMERICA

The officers of the International College of Surgeons and its United States Chapter extend a cordial invitation to you and to all members of the profession in good standing in their State Medical Societies and their guests to attend the Fourth International Assembly of the International College of Surgeons and the Eighth National Assembly of the United States Chapter.

The Assembly will be held from June 14 to 16, inclusive, at the Waldorf-Astoria Hotel, New York City. A comprehensive program of the highest scientific interest, with panel discussions and demonstrations of important problems, as related to WAR SURGERY AND REHABILITATION will be presented by outstanding members of the profession in the United States and by foreign delegations.

The Arrangements Committee of the City of New York is doing its utmost to make this Assembly an outstanding one in the dissemination of knowledge developed during the war. We express our appreciation herewith to all who aided us in the culmination of an instructive and successful Assembly.

FRED H. ALBEE, M.D., Sc.D., LL.D., F.A.C.S., F.I.C.S.
President, International College of Surgeons

THOMAS A. SHALLOW, M.D., F.A.C.S., F.I.C.S.
President, United States Chapter,
International College of Surgeons

PROGRAM

FOURTH INTERNATIONAL ASSEMBLY

In Conjunction with Eighth National Assembly
of the
INTERNATIONAL COLLEGE OF SURGEONS

New York, N.Y. June 14, 15, 16, 1943

Convention Headquarters . . . **Waldorf-Astoria Hotel**

As part of our National War Effort, this meeting has been opened to all physicians in good standing in their State Medical Societies.

ARRANGEMENTS COMMITTEE
Chairman: Dr. Charles Phillips, New York City
Members: Dr. Alexander Kaye, New York City
Dr. J. R. Jaeger, Denver, Colorado
Dr. C. E. Pauley, Long Island, New York
Dr. H. M. Scheer, New York City

PROGRAM COMMITTEE
Chairman: Dr. A. A. Berg, New York City
Secretary: Dr. Gustave Aufricht, New York City
Members: Dr. Wm. S. Bainbridge, New York City
Dr. Wm. Bates, Philadelphia, Pa.
Dr. Moses Behrend, Philadelphia, Pa.
Dr. Harold Corbusier, Plainfield, N. J.
Dr. Andre Crotti, Columbus, Ohio
Dr. Frederick M. Douglass, Toledo, Ohio
Dr. George H. Gillen, Denver, Colorado
Dr. Custis Lee Hall, Washington, D. C.
Dr. Wm. Carpenter MacCarty, Rochester, Minn.
Dr. Duncan MacPherson, New York City
Dr. Chester A. Peake, Brooklyn, N. Y.
Dr. Desiderio Roman, Philadelphia, Pa.
Dr. Bernard Samuels, New York City
Dr. Thomas A. Shallow, Philadelphia, Pa.

EXHIBITS COMMITTEE
Chairman: Dr. Chester A. Peake, Brooklyn, N. Y.

PUBLICITY COMMITTEE
Chairman: Dr. Milton A. Bodenheimer, New York City

MILITARY AFFAIRS COMMITTEE
Chairman: Dr. William S. Bainbridge, New York City

REHABILITATION COMMITTEE
Hon. Chairman: Dr. Fred H. Albee, New York City
Chairman: Dr. Harold Corbusier, Plainfield, N. J.
First Vice-Chairman: Dr. Custis Lee Hall, Washington, D. C.
Second Vice-Chairman: Dr. William D. Ryan, Detroit, Mich.

CHAIRMEN OF PROGRAM COORDINATION FOR OTHER COUNTRIES
Central and Latin America:
Dr. Manuel A. Manzanilla
Dr. Herman de Las Casas
Europe:
Dr. Rudolph Nissen

PROGRAM

MONDAY, JUNE 14, 1943

REGISTRATION—8:00 A.M.
9:00 A.M.—12:00 Noon

INVOCATION

ADDRESS OF WELCOME
His Honor, Mayor Fiorello La Guardia, Esq.
Mayor of City of New York

1. Capt. Reynolds Hayden, M.C., U.S.N., District Medical Officer Third Naval District.
   Experiences at the Naval Hospital at Pearl Harbor During and After the Japanese Raid.
2. Col. R. W. Bliss, M.C., U.S.A., Surgeon, Eastern Defense Command and First Army.
   The Transportation and Care of the Sick and Wounded from the War Zones.
3. Capt. W. M. Craig, M.C., U.S.N.R., U.S. Naval Hospital, National Naval Medical Center, Bethseda, Md.
   Shock.
4. Commander B. W. Hogan, M.C., U.S.N., Bureau of Medicine and Surgery, Navy Department, Washington, D. C.
   Blast Injuries.
5. Lt. Col. D. B. Kendrick, M.C., U.S.A., Army Medical School, Army Medical Center, Washington, D. C.
   Use of Blood Plasma.

LUNCHEON—VISITING EXHIBITS

2:00 P.M.—5:00 P.M.

1. Dr. E. A. Rovenstein, Bellevue Hospital, New York City.
   Report on Anaesthesia Practices in the Present War.
2. Brig. Gen. A. H. Waitt, Washington, D. C.

War Casualties Due to Gas.

3. Capt. C. M. Shaar, M.C., U.S.N., U.S. Naval Hospital, Philadelphia, Pa.
   Thoracic Injuries.
4. Papers from Great Britain by title.
   Mr. Rodney Maingot.
   Management of Wounds of the Abdomen.
   Mr. Hamilton Bailey.
   Mr. Basil Hughes Blast.
   Classification of Wounds.
   Mr. Hamilton Bailey.
   Crush Syndrome.
   Mr. James Brailsford.
   Localization of Foreign Bodies by X-rays.
   Mr. Robert McNeill Love.
   Gas Gangrene.
   Mr. Ernest Finch.
   An Historical Survey of the Treatment of War Wounds.
5. Delegation from Peru.
   Dr. Fortunato Quesada.
   A New Procedure for Treatment of War Fractures.
   Dr. Belisario Sanchez.
   Treatment of Compound Fractures.
   Dr. Julio Faldini.
   Reconstruction of the Hip.
   Dr. Ezequiel Martinez.
   Some Considerations about Treatment of Fractures.
   Dr. Enrique Camprubi.
   Four Cases of Rehabilitation Surgery.
   Dr. Francisco Graña.
   Anesthesia in War Surgery.

8:30 P.M.—11:00 P.M.

1. Capt. W. L. Mann, M.C., U.S.N., Naval Medical Research Institute, National Naval Medical Center, Bethseda, Md. President of the Association of Military Surgeons of the United States.
   Research in Naval Medicine.
2. Col. R. H. Kennedy, M.C., U.S.A., Percy Jones Medical Hospital, Battle Creek, Michigan.
   The Type of War Casualties Returning to a General Hospital in This Country.
3. Dr. V. V. Lebedenko, Representative of the Red Cross and Crescent Society of the U.S.R.R.
   The Organization of Surgical Aid in the Soviet Army.
4. Lieut. Jose Londres, Brazilian Navy.
   War Surgery in the Brazilian Navy.

TUESDAY, JUNE 15, 1943

REGISTRATION—8:00 A.M.

9:00 A.M.—12:00 NOON

1. Dr. Rudolph Nissen, New York City.
   Dr. Ernest W. Bergmann, New York City.
   Cineplastic Procedures.
2. Dr. Roger Anderson, Seattle, Washington.
   Self-Aligning Method of Treating Fractures of the Shaft.
   Kodachrome Slides (Also Motion Pictures).
3. Delegation from Mexico. Medical Problems of the War.
   Dr. Victor Fernandez Manero, Chief of the Public Health Department of the Mexican Government.
   Emergency Sanitary Services in Tropical War Zones.
   Dr. Gustavo Argil, Director of the Faculty of Medicine, National University of Mexico.
   Shock.
   Dr. Dario Fernandez, National Vice-president of Mexican Chapter, International College of Surgeons.
   Dr. Rudolfo Ayala Gonzales.
   Hemorrhage.
   Dr. Miguel Lopez Esnaurrízar.
   Dr. Estaban Paulin.
   Infection.
   Dr. Manuel A. Manzanilla, International Vice-president International College of Surgeons.
   Burns.
   Major Manuel Sanchez Garibay, M.C., Delegate of Department of Military Medicine of War Department, Mexico.
   Head Injuries.

LUNCHEON—VISITING EXHIBITS

2:00 P.M.—5:00 P.M.

1. Lt. Col. R. G. Spurling, M.C., U.S.A. Walter Reed General Hospital, Chief of Neurosurgical Section, Washington, D. C.
   (a) Herniation of the Nucleus Pulposus of the Lower Lumbar Region.
   (b) Injuries of the Spinal Cord and Peripheral Nerves.
   (Lantern Slides).

2. Dr. J. Rudolph Jaeger, Clinical Professor of Neurological Surgery, Jefferson Medical College, Philadelphia, Pa.
   Cranio-cerebral Injuries.
   (Motion Pictures).
3. Capt. Reynolds Hayden, M.C., U.S.N., District Medical Officer, Third Naval District.
   The Present Treatment of Wounds and Burns.
4. Capt. H. I. D. Kirkham, M.C., U.S.N.R., U. S. Naval Hosp., San Diego, California.
   Plastic Surgery Applied to War Injuries.
5. Dr. Jerome P. Webster, New York City.
   The Training of Army Surgeons in Plastic Surgery.
6. Dr. Vilray P. Blair, St. Louis, Missouri.
   The Relation of the Early Care and the Final Outcome of Major Face Wounds in War Surgery.
7. Dr. Enrique St. Loup B., Bolivia.
   Some Uses and Disadvantages of Tubed Pedicle Flaps.
   (By title)

WEDNESDAY, JUNE 16

REGISTRATION

9:00 A.M.—12:00 A.M.

1. Dr. Philip Wilson, New York City, Founder and Medical Director of American Hospital in Britain, 1940-42; Surgeon-in-Chief, Hospital for Special Surgery, New York City. 90 minutes.
   Treatment of Compound Fractures.
2. Dr. Fred H. Albee, New York City, President, International College of Surgeons.
   Reconstruction of Bones and Joints.
3. Dr. Wm. D. McFee, Boston, Mass., Consultant in Physiotherapy, U. S. Veterans Administration.
   Physical Medicine and the Rehabilitation Problem.
4. Dr. Felix Mandl, Palestine.
   Dr. Leonard Doljanski.
   (a) *Cell Growth Promoted by Animal Tissue Extract.*
   (b) *Operative Nearthrosis in Cases of Comminuted Fractures of the Elbow.*
   (By title)
5. Dr. Emin Erkul, Istanbul, Turkey.
   Wounds of the Mediastinum.
   (By title)

LUNCHEON—VISITING EXHIBITS

2:00 P.M.—5:00 P.M.

1. Dr. Robert T. Merrill, Commander-in-Chief, Veterans of Foreign Wars.
   A Layman's View of Rehabilitation.
2. Lt. Col. C. E. Gorman, M.C., U.S.A., War Department, Office of the Surgeon General, Washington, D C. 30 minutes.
   Rehabilitation.
   Discussion by Psychologist.
3. Dr. Chas. M. Griffith, Medical Director, Veterans Administration, Washington, D.C. 20 minutes.
   Surgical Treatment of Tuberculous and Malignant Disease of the Respiratory Tract.
4. Col. H. D. Corbusier, Medical Reserve, Inactive, U. S. A.
   The Conservation of Man Power for War.
5. Dr. J. Heng Liu of China.
   Difficulties of a Chinese Army Surgeon.

8:30 P.M.—11:00 P.M.

1. Col. L. Sanders, M.C., Field Artillery, Chief Re-employment Division, Selective Service System, Washington, D. C.
   The Administrative Procedures in Reintegrating the Armed Forces into Civilian Life.
2. Prof. Herman de las Casas, Dean of the Faculty of Medicine, University of Caracas, Venezuela.
   Manuel Corachan Memorial Oration in Surgery.
3. Dr. William Bates, Philadelphia, Pa., Professor of Surgery, Graduate School of the University of Pennsylvania, Vice-president, American Chapter, International College of Surgeons.
   Address.

ROUND TABLE DISCUSSIONS

(Rooms announced on bulletin boards)

MONDAY, JUNE 14

10:30 A.M.—12:00 A.M.

1. *Treatment of Fractures by Stader Fixation Splint.*
   Capt. C. M. Shaar, M.C., U.S.N., from the Philadelpha Naval Hospital, presiding.
2. *The Prevention and Treatment of Shock in the Wounded.*
   Dr. E. J. McCormick, Toledo, Ohio, presiding.
   Studies on Circulation Time in Shock.
   Dr. Jablons, New York, presiding.

3:30 P.M.—5:00 P.M.

1. *Treatment of Burns. The Prevention of Contractures by Early Motion and the Open Air Paraffin Wax Treatment of Burns.*
   Lt. Commander Ralph C. Pendleton, M.C., U.S.N.R.
   Discussion.
   Lt. Col. Manuel Robiou, Surgical Director of the National Army, Dominican Republic.

TUESDAY, JUNE 15
10:30 A.M.—12:00 A.M.

1. *Injuries of the Neck.*
   Dr. André Crotti, Columbus, Ohio, Surgeon, Grant, St. Francis and Mt. Carmel Hospitals; Past President, International College of Surgeons, presiding.
2. *Effects of Traumatism on Abdominal Viscera.*
   Dr. Wm. Seaman Bainbridge, New York City, Surgical Director, Manhattan State Hospital; Cons. Surgeon many metropolitan hospitals, U. S. Public Health Service, N. Y. District; U. S. Navy, Third Naval District, presiding.

3:30 P.M.—5:00 P.M.

1. *Abdominal Visceral Injuries and Management of Peritonitis.*
   Dr. Fred Douglass, Toledo, Ohio, Director of Surgery, St. Vincent's Hospital; Past-president, International College of Surgeons, presiding.

WEDNESDAY, JUNE 16
10:30 A.M.—12:00 A.M.

1. *Penetrating Wounds, Foreign Bodies and Sympathetic Ophthalmia of the Eye.*
   Dr. E. B. Burchell, New York City, Curator, New York Eye and Ear Infirmary.
   Dr. B. Samuels, New York City, Ophthalmic Surgeon and Pathologist, New York Eye and Ear Infirmary, presiding.
2. *Autopyotherapy in General and War Surgery.*
   Dr. Martin Bourand, Port-au-Prince, Haiti, Professor of Surgery of the Faculty of Medicine, Port-au-Prince.

3:30 P.M.—5:00 P.M.

1. *Aviation in Relation to the Ear.*
   Dr. J. O. MacDonald, New York City, Associate Clinical Professor in Otolaryngology, Post Graduate Medical School, Columbia University, presiding.
2. *First Aid Treatment and After Care of Large Surface Wounds.*
   Col. J. L. Gallagher, M.C., U.S.A.

DELEGATES FROM THE FOLLOWING COUNTRIES WILL REPRESENT THEIR RESPECTIVE NATIONS

Argentina
- Dr. Alejandro Ceballos
- Dr. Oscar Gomez
- Dr. Alberto Gutierrez
- Dr. Alejandro Pawlowsky
- Dr. José Valls
- Dr. Ricardo De Tchessary

Bolivia
- Dr. Enrique St. Loup B. — Paper by title

Brazil
- Dr. Oswaldo P. Campos — Paper
- Dr. Estellita Lins
- Dr. Dagmar Chaves
- Dr. Domingo da Costa
- Dr. J. C. Monteiro

Canada
- Dr. Otto DeMuth

Colombia
- Dr. Jorge Cavalier
- Dr. Hernando Anzola Cubides
- Dr. Jorge Castro Duque
- Dr. Pablo Gomez Martinez
- Dr. Jorge Salcedo Salgar

Costa Rica
- Dr. Jose Maria Ortiz Cespedes
- Dr. Roberto Quesada Jiminez
- Dr. Vicente Castro Cervantes
- Dr. Ricardo Mascheno
- Dr. Alexis Ogrien Soto
- Dr. Jose M. Ortiz

Cuba
- Col. Juan M. Leal
- Lt. Col. Eduardo Garcia Porras-Pita

Dominican Republic
- Dr. Rafael A. Battle
- Lt. Col. Manuel Robiou — Discussion

Great Britain
- Mr. Rodney Maingot — Paper
- Mr. Hamilton Bailey — Paper

Haiti
- Dr. Martial Bourand — Paper
- Dr. E. S. Villard
- Dr. Louis Maxmilien
- Major R. B. Laroche

Honduras
- Dr. Salvador Paredes — Paper
- Dr. H. D. Guilbert — Paper
- Dr. Gomez-Marquez — Paper

India
- Lt. Col. M. M. Cruikshank
- Dr. D. S. Puttanna
- Dr. T. Seschachalen
- Dr. A. M. Ponnanbalen
- Dr. B. N. Balakrishma Rao

Mexico
- Dr. V. F. Manero — Paper
- Dr. M. A. Manzanilla — Paper
- Dr. M. L. Esnaurrízar — Paper
- Dr. D. F. Fierro — Paper
- Dr. F. F. Garcia — Paper
- Dr. E. P. Gonzales — Paper
- Dr. G. Argil — Paper
- Dr. L. de la Rosa — Paper
- Dr. Hector Manjarrez Gomez de la Torre (Representing General Francisco Castillo Najera) — Paper

Morocco
- Dr. Pérard
- Dr. Dubois Roquebert
- Dr. Martin
- Dr. Comte
- Lt. Col. Ribolet

Nicaragua
- Dr. Desiderio Roman

Palestine
- Dr. Felix Mandl — Paper by title
- Dr. L. Dolinski — Paper by title

Panama
- Hon. A. S. Boyd — Paper
- Dr. L. S. Alfaro — Paper
- Dr. Jaime de la Guardia — Paper

Paraguay
- Dr. Manuel Giagni — Paper
- Col. Luis Santiviago — Paper

Peru
- Dr. Francisco Graña — Paper
- Dr. Fortunato Quesada — Paper
- Dr. O. G. del Villar — Paper
- Dr. Belisario Sanchez — Paper
- Dr. Julio Faldini — Paper
- Dr. Ezequiel Martinez — Paper
- Dr. Enrique Camprubi — Paper

Russia
- Dr. V. V. Lebedenko — Paper

Turkey
- Dr. Mehmet Emin Erkul — Paper by title
- Dr. Fahri Arel
- Dr. Hazim Bumin

Uruguay
- Dr. E. B. Acevedo
- Dr. Domingo Prat
- Dr. Armando M. Loubevac

Venezuela
- Dr. Herman De Las Casas — Oration in Surgery

Scientific, Military and Rehabilitation Exhibits

The State of New Jersey, Rehabilitation Commission, John H. Toohey, Jr., Director, Newark, New Jersey.

A Visual Demonstration of the Work of Rehabilitation in its Curative Workshop, J. C. Kupper in charge, Dr. F. G. Dilger and nurse in attendance.

Regimental Aid Station, set up by the Medical Detachment of the 17th Regiment Armory, under the direction of Major R. Donald Beck, Regimental Surgeon. The exhibit will be manned by members of the New York State Guard of the 17th Regiment, medical detachment, in daily attendance.

American Red Cross. An exhibit showing a lighted diorama on a blood plasma transfusion. Panels with photographic montages on the Red Cross various services.

Prevention of Blindness Service of the New York State Commission for the Blind, presenting an exhibit pointing out through a series of posters the relationship between vision conservation program and the National Defense.

The Veterans Administration of Washington, D. C., Dr. Charles M. Griffith will exhibit charts of the routine and special measures used in Bibliotherapy, Occupational Therapy and Physical Therapy used to aid in

the treatment of patients in the Veterans Administration Hospitals.

The Universal School of Handicrafts, chartered by the Board of Regents of the State of New York, and now engaged in a study of creative activities for rehabilitation, will present material and findings in this particular field, under the personal direction of Edward T. Hall, Director.

Dr. Alfred Angrist, Pathologist, Queens General Hospital, Jamaica, L. I.
Demonstration of Brain Injuries by Color Transparency.

Capt. Wm. Seaman Bainbridge, M.C., U.S.N.R., President American Academy of Physical Medicine, New York City.
Physical Medicine in the United States Navy.

Dr. Chas. W. Bethune, Buffalo, N. Y.
Models: an exhibit in cooperation with the Sisters Hospital of Buffalo, N. Y. and the Department of Health under the direction of Dr. F. E. Fronczak, Buffalo, N. Y.

Dr. H. I. Biegeleisen, Stuyvesant Polyclinic, New York City
Sclerotherapy for Rehabilitation.

Dr. Benjamin Jablons, New York City.
Photoelectric Determination of Circulation Time.

Dr. Kenneth A. Koerber, Medical Director of Cramp Shipbuilding Co., Philadelphia, Pa.
Rapid Rehabilitation in Shipyard Injuries.

Dr. Maxwell Maltz, West Side Hospital and Dispensary, New York City.
New Plastic Procedures.

Major Murray Sanders, Medical Corps, U.S.A. and R. C. Alexander, M.S., New York City.
Epidemic Keratoconjunctivitis.

State of New York, Department of Public Health, Albany, N. Y.
Newer Concepts of the Shock Syndrome.

Dr. Henry K. Taylor, Goldwater Memorial Hospital, New York City.
Bone Infarcts and Aseptic Necrosis.

Dr. J. Eastman Sheehan, New York Polyclinic Medical School and Hospital, New York City.
Plastic Reparative Surgery.

Dr. Jacques Maliniac, New York City.
Plastic Surgery—Skin Grafts versus Flaps.

Dr. Charles Gilfillan, Hollywood, California.
Internal Fixation of Fractures—Recent Advances.

Dr. Lyman Weeks Crossman and *Dr. Frederick M. Allan.*
Refrigeration Anaesthesia.

A. A. Goldberg, M.D., Chicago, Ill.
S. N. Blackberg, M.D., Chicago, Ill.
P. Stanley, Newark, N. J.
The Pathology of Arthritis.
C. Mosser Taylor, M. D.
Charles Gilfillan, M.D.
Alfred Gallant, M.D.
Capt. Kenneth Townsend, M.C., U.S.A.
Comdr. Rudolph Joldersma, M.C., U.S.A.
Maj. Alonzo Neufeld, M.C., U.S.A.
From the Department of Orthopedic Surgery, College of Medical Evangelists, Los Angeles General Hospital, and United States Naval Hospital, San Diego.
Recent Advances in Internal Fixation of Fractures.

National Rehabilitation Association, Inc., Roanoke, Virginia. The Association is dedicated to the welfare of the physically handicapped persons of all types. It is largely concerned with the promotion of legislation in favor of the physically handicapped.
Space will be taken up with publications and displays from various states in the nation.

Army Medical Museum of the Office of the Surgeon General.
The exhibit will include clinical photographs prepared by the Museum and Medical Arts Service, Army Medical Museum.
A series of paintings and drawings for teaching first aid to combat troops, presenting through the Surgeon-General's office and the Army Medical Museum, an entirely new and practical approach based upon conditions under which a wounded soldier may find himself.

MOULAGE EXHIBIT

Composed of moulages depicting typical wounds experienced in World War II.

TRANSPARENCIES

Photomicrographs illustrating renal lesions of the crush syndrome and other clinical conditions.

MOTION PICTURES

1. *Capt. Reynolds Hayden*
   (a) Medical Care of Amphibious Forces
   (b) Personal Damage Control
2. *Dr. J. Rudolph Jaeger*
   Craniocerebral Injuries
3. *Dr. J. W. Maliniac*
   Plastic Surgery—Skin Grafts versus Flaps in the repair of Skin Defects of the Face and Neck
4. *Dr. Fred Albee*
   a. Reconstruction Operation for Ruptured Crucial Ligament
   b. H-Graft for Fracture of the Patella
   c. Arthrodesis of the Knee with Bone-Graft Peg
   d. Arthroplasty of the Knee
   e. Bone Peg of the Hip, with End Results
   f. Arthroplasty of the Elbow
5. *Dr. Roger Anderson*
   Application of Treatment of Fractures. A 10 minute movie.
6. *Capt. C. M. Shaar, M.C., U.S.N.*
   Sound Film. Treatment of Fractures by the Stader Fixation Splint
7. *Dr. J. Eastman Sheehan*
   Surgical Operations depicting the Modern Treatment of War Wounds and War Burns as practiced in English Hospitals
8. *Dr. Maxwell Maltz*
   Repair of Recent Facial Wounds
9. *Dr. Moses Behrend*
   a. Inguinal, Femoral, Incisional and Diaphragmatic Hernia Repair with Living Fascia (Kodachrome)—15 minutes)
   b. Extrapleural Graded Thorocoplasty (Kodachrome—15 minutes)
10. *Dr. G. G. Burniston,* Squadron Leader, Royal Australian Air Force
    Rehabilitation in the R.A.F.
11. *Association of Limb Manufacturers of America, Inc.*
    Amputation below the Knee
12. *Dr. Rudolph Nissen*
    Dr. Ernest W. Bergman
    Cineplastic Procedures
13. *Mr. Hamilton Bailey,* London, Eng., and others.

TECHNICAL EXHIBITS

(Booths 1 to 21 in Jade Room; Booths 22 to 42 in Astor Gallery)

Booth No.

1. Journal of the International College of Surgeons.
2. International College of Surgeons.
3. Austenal Laboratories, Inc., New York City.
4. American Hospital Supply Corporation, Chicago, Ill.
5. The Berlitz Schools of Languages, New York City.
6. J. E. Hanger, Inc., New York City.
7. American Sterilizer Company, Erie, Pa.
8. Cameron Heartometer Company, Chicago, Ill., New York, N. Y.
9. Phillip Morris & Co., Ltd., Inc., New York City.
10. American Safety Razor Corporation, Brooklyn, N. Y.
11. Novocol Chemical Manufacturing Co., Brooklyn, N. Y.
12. Pioneer Rubber Company, Willard, Ohio.
13. Clay-Adams Company, Inc., New York City.
14. Clay-Adams Company, Inc., New York City.
15. Ciba Pharmaceutical Products, Inc., New York City.
16. Singer Sewing Machine Company, New York City.
17. Singer Sewing Machine Company, New York City.
18. Singer Sewing Machine Company, New York City.
19. Singer Sewing Machine Company, New York City.
20. Medical Film Guild, New York City.
21. Johnson & Johnson, New Brunswick, N. J.
22. The Tower Company, Inc., Seattle, Wash.
23. The Doho Chemical Corporation, New York City.
24. J. R. Siebrandt Manufacturing Co., Kansas City, Mo.
25. Camel Cigarettes — Medical Relations Div., New York City.
26. Camel Cigarettes — Medical Relations Div., New York City.
27. Wallace & Tiernan, Inc., Belleville, N. J.
28. The Alkalol Company, Taunton, Mass.
29. Wisconsin Alumni Research Foundation, Madison, Wis.

30. Bard-Parker Company, Inc., Danbury, Conn.
31. Schering Corporation, Bloomfield, N. J.
32. Contact Lens Service, New York, N. Y.
33. Carbisulphoil Company, Dallas, Tex.
34. Davis & Geck, Inc., Brooklyn, N. Y.
35. J. H. Emerson Co., Cambridge, Mass.
36. Cameron Surgical Specialty Co., Chicago, Ill., New York, N. Y.
37. The Denver Chemical Mfg. Co., New York City.
38. Canadian Radium and Uranium Corporation, New York City.
39. T. H. McKenna, Inc., New York City.
40. White Laboratories, Inc., Newark, N. J.
41. Obrig Laboratories, Inc., New York City.
42. The Gilliland Laboratories, Inc., Marietta, Pa.

THE ALKOLOL COMPANY

Taunton, Mass.
Booth 28

Showing Alkalol, claimed by the manufacturers to be a carefully balanced alkaline saline solution. It is aqueous, containing no glycerine and only a trace of alcohol, a mucous solvent, bland, non-toxic, non-irritating. It is suggested for mucous membranes and irritated tissues and is a comforting, effective wet dressing used post-operatively.

Also Irrigol, an alkaline, saline slightly astringent powder, readily dissolved in water, and recommended as a safe, cleansing vaginal douche, and effective colonic irrigation, and a rectal enema that reduces gas distress. In charge: S. J. Fearns assisted by W. J. Ford.

AMERICAN HOSPITAL SUPPLY CORPORATION

Chicago, Ill.
Booth 4

Key products for war use as well as hospital supplies and specialties of everyday character, will be on display in the American Hospital Supply Corporation booth. Biodyne, a new ointment for burns has received favorable clinical comment. Derma-Fresh, a body rub using no irritants, is claimed to be an improvement over ordinary alcohol. Baxter Intravenous Solutions and Blood, Plasma and Serum equipment, and other products will be exhibited and discussed in detail. In charge: C. M. Carter, Jr., District Manager, assisted by E. W. Erikson and J. E. Schutte.

AMERICAN SAFETY RAZOR CORPORATION

Brooklyn, N. Y.
Booth 10

A.S.R. Surgeon's Blades are known for their uniformity of performance, high quality and never deviating keenness. Visit their booth where their representatives, Miss M. Stewart, R. N. and Mr. Merwin Smith, will be pleased to show a full assortment of A.S.R. Surgeon's Blades, available in 9 different sizes to fit all standard surgical handles. Full information may be obtained about these precision-made surgical instruments.

AMERICAN STERILIZER COMPANY (Comper Division)

Erie, Penna.
Booth 7

Demonstrations with a live model will be given on the Albee-Comper Orthopedic and Fracture Table devised by Dr. Fred H. Albee of New York. Adapted to the needs of war-time procedure. this table has wide use under war-time conditions.

Optional accessories which include Skeletal Traction, Goldthwaite Irons, Ryerson Autojack, Scoliosis Yoke, and the L'Episcopo Head and Shoulder Rest will be demonstrated during the meeting, and maximum operative efficiency of the Albee-Comper Orthopedic Table, obtained with a minimum of surgical time and fatigue, will be shown.

Also, on display is the Comper Orthopedic Walker.

In charge: Messrs. Howard M. Fish, Adrian Comper, E. O. Lindberg, Fred G. Bauschard.

AUSTENAL LABORATORIES, INC.

New York, N. Y.
Booth 3

Vitallum, an alloy of cobalt, chromium and molybdenum is featured by the Austenal Laboratories. Originally used in the manufacture of dental appliances, surgeons have found that Vitallum is completely inert in vivo, does not irritate the tissue nor interfere with normal bone regeneration, and has the requisite strength. In charge: J. J. Erdmann assisted by Katherine S. Hutchinson, George F. Howland, William H. Soller.

BARD-PARKER COMPANY, INC.

Danbury, Mass.
Booth 30

The following products will be exhibited at the Bard-Parker Booth No. 30: Rib-Back Surgical Blades; Long Knife Handles for deep surgery; Renewable Edge Scissors; Formaldehyde Germicide and Instrument Containers; Transfer Forceps; Hematological Case for obtaining bedside blood samples. In charge: Carl A. W. Rogers, Jr.

BERLITZ SCHOOLS OF LANGUAGES

New York, N. Y.
Booth 5

Well educated men and women have for years been acquiring an ability to speak another language as a matter of course, but today professional persons as well as those engaged in industry and commerce have need of a second language, particularly in the growing relations with the South American countries.

The Berlitz Schools of Languages will have interpreters in their booth to assist the visiting members of the International College of Surgeons from Latin American and other countries. In charge: Miss Eunice Gray and Mr. Julio Vargas.

CAMEL CIGARETTES (Medical Relations Division)

New York, N. Y.
Booths 25-26

Camel Cigarettes will exhibit large detailed photographs of equipment used in comparative tests of the five largest-selling brands of cigarettes. Dramatic visualization of nicotine absorption in the human respiratory tract from cigarette smoke will be demonstrated. International news with the Camel Cigarette Trans-Lux "Flash Bulletins," may be seen while enjoying a supply of slow-burning Camel Cigarettes. Representatives: Messrs. E. F. Leland, J. L. Mason, A. W. Roberts.

CAMERON HEARTOMETER COMPANY

Chicago, Ill.
Booth 8

The Cameron Heartometer Company will show the improved Heartometer, a scientific precision instrument for accurately recording systolic and diastolic blood pressures. It will also furnish a permanent graphic record of the pulse rate, the nervous functioning of the heart, the myocardial strength, as well as the functioning of the valves. The Heartometer clearly reveals heart disturbances in both early and advanced stages and is of value in checking the progress of medication and treatments. In charge: Dr. A. S. Cameron.

CAMERON SURGICAL SPECIALTY COMPANY

Chicago, Ill.—New York, N. Y.
Booth 36

The Cameron Surgical Specialty Company will show for the first time at a medical convention, the new Broncho-Esophago-Laryngoscopic Set, the new Cavicamera for photographing in color through gastroscopes and cystoscopes, new Bollolite Transilluminators, Photo-Microlite and Projector. There will also be exhibited the Omniangle Flexible Gastroscope, Binocular Prism Loupe, Mirrolite (the new Headlite), Magniscope, Electro-Surgical Units and Color-Flash Clinical Camera. Walton P. Smith, Eastern Manager in charge. Eastern Office 250 West 57th Street, New York, N. Y.

CANADIAN RADIUM & URANIUM CORPORATION

New York, N. Y.
Booth 38

At the exhibit of the Canadian Radium and Uranium Corporation, representatives will present to the medical profession advanced developments in radium medical appliances and other features of especial interest. This Company, as sole sales agent, offers high-purity Canadian radium at lowest prices, on sale or rental. Representatives will be glad to assist in individual studies of physicians' requirements. In charge: H. B. Kearney assisted by Boris Pregel, Alexander Pregel, J. S. Harris, Frank Hartman.

CARBISULPHOIL COMPANY

Dallas, Texas
Booth 33

Foille, an antiseptic, analgesic emulsion used in the field of burns and wounds will be displayed.

The company states that Foille treats a burn as a wound, effecting almost immediately a marked control of pain, and materially mitigates first shock. Forming a soft coagulum over denuded areas in contrast to a tough, tannic acid eschar, needed suppuration and drainage is permitted when required; free mobility of joint creases and extremities is afforded to reduce contracting scars; clinical history in the civilian, military and industrial field attests to material reduction of the recovery period. Represented by Don L. Sterling, Vice President, assisted by A. V. Hurd.

CIBA PHARMACEUTICAL PRODUCTS, INC.

Summit, N. J.
Booth 15

Ciba is planning to display the various pharmaceuticals of their manufacture which have been found useful adjuncts to the specialty of surgery.

Particular stress will be given to the recent work by Drs. Gunther et al. on "Intramuscular Pressure" which contains their study of Coramine in the treatment of shock and shock-like conditions. In charge: R. C. Mautner assisted by W. J. Collins, A. Cooper, L. DeLuca.

CLAY-ADAMS COMPANY, INC.

New York, N. Y.
Booths 13-14

Exhibit: (1) The Herzmark-Adams Traction Reel, a new orthopedic device eliminating use of weights and pulleys and having a self-contained system for varying the weights by gears up to twenty pounds.

(2) Cacoprene (synthetic rubber, catheters, drains, and gastro-duodenal tubes), is their trademark product for surgical rubber goods made of a special formula of Du Pont Neoprene.

(3) An important part of the exhibit will be the medical teaching equipment.

(4) Surgical instruments, laboratory specialties and the newest model of the Adams Senior Safety-Head Centrifuge. In charge: Harry Roth assisted by Emil Davidson, L. T. Hilborn, A. W. Lamm.

CONTACT LENS SERVICE

New York, N. Y.
Booth 32

The Company will demonstrate the wearing of the lenses and exhibit different types of lenses used both as aids to vision and for cosmetic effects, showing the value in the cases of extremely high myopia and keratoconus.

There will be a demonstration of moulding to show what actually takes place during the process. Patients wearing the lenses will be present. Represented by Gertrud Salvatori.

DAVIS & GECK, INC.

Brooklyn, N. Y.
Booth 34

Davis & Geck, Inc., will display its complete line of sterile sutures including fine gauge (0000 and 00000) catgut; a comprehensive group of sutures armed with swaged-on Atraumatic needles designed for specific surgical procedures; Dermalon skin and tension sutures (processed from nylon) which, because of marked physical advantages and economy, are rapidly replacing silk-worm gut and other non-absorbable materials.

A representative from the laboratories will be in attendance at the booth and copies of the "Manual of Surgical Sutures and Ligatures" and other interesting booklets will be available. In charge: J. Cameron Stuart.

THE DENVER CHEMICAL MFG. CO.

New York, N. Y.
Booth 37

The Company will exhibit Galatest, a dry reagent for the instantaneous detection of urine sugar. It is claimed to be accurate, simple, speedy and economical, and used routinely by many leading hospitals and medical departments of industries, and by more and more private practitioners every day. In charge: Frank A. Brooks, Miss Helen I. Creelman, R.N.

DOHO CHEMICAL CORPORATION

New York, N. Y.
Booth 23

The Auralgan Exhibit consists of a model of the human auricle, four feet high, together with a series of twenty-four three dimensional ear drums, modelled under the supervision of outstanding otologists. Each of these drums depict a different pathologic condition based upon actual case observation and prepared in so far as possible, with strict scientific accuracy so as to be highly instructive and interesting to all physicians. In charge: Herbert R. Steinman, Harry Mendelson, Dr. Walter von Horst.

THE GILLILAND LABORATORIES, INC.

Marietta, Penna.
Booth 42

We will exhibit some of the biological Products in which we specialize. These include Antitoxins, Sera, Toxoids and Vaccines for treatment and prevention of Cholera, Diphtheria, Dysentery, Gas Gangrene, Tetanus, Typhoid Fever, Smallpox and many other diseases.

You are cordially invited to visit our booth and your inquiries will be handled by the trained personnel in attendance.

J. E. HANGER

New York, N. Y.
Booth 6

The Company will show models of the latest type metal and willow artificial legs and various types of artificial arms. Limb wearers will be in attendance to give actual walking demonstrations. The improved safety automatic knee lock for above knee amputations will be on display. Data will be distributed indicating the most desirable points of selection from the standpoint of successful prosthesis. In charge: William J. Ferris, Jr.

INTERNATIONAL COLLEGE OF SURGEONS

Chicago, Ill.
Booth 2

Members of the College and visitors are cordially invited to stop and chat with our representatives, to leave their professional cards and to meet with their colleagues.

JOHNSON & JOHNSON

New Brunswick, N. J.
Booth 21

The Ethicon Suture Division of Johnson & Johnson will show many new items. Included will be special purpose sutures with swaged-on needles for use in eye, nerve and other surgery, as well as stay sutures and nylon and silk in fine gauges. Of special interest to urologists, gynecologists and orthopedic specialists, as well as to general surgeons, will be the tubes of sterile fascia lata in strips and in sheets.

The phenomenal advancement in available suture materials and in operative procedure since the Listerian period, are interestingly portrayed in the Johnson & Johnson film "Sutures Since Lister." Opportunity for viewing this sound film will be afforded at the Convention. A copy of their book, "Operative Procedure," may be obtained. In charge: H. M. Hirschhorn, J. W. Smith, L. L. Allen, T. W. Mee.

JOURNAL OF INTERNATIONAL COLLEGE OF SURGEONS

Chicago, Ill.
Booth 1

The Journal of the International College of Surgeons will be distributed at our booth. The Proceedings of the Third International Assembly of the College will be on display.

LYDIA O'LEARY, INC.

New York, N. Y.
Booth 35

The Lydia O'Leary Covermark exhibit will show the professional use of this preparation for concealing the discoloration of post-operative scars, as well as permanent or temporary skin blemishes. Application of Covermark will be demonstrated in our booth, and literature and professional samples will be available.

T. H. McKENNA, INC.

New York, N. Y.
Booth 39

A complete display of the new and standard books of all medical publishers will be exhibited. In the belief that it will be a convenience to be able to examine the books of all publishers in one joint exhibit, the various publishers have cooperated in the arrangement of the exhibit. One of the books to be shown will be the revised edition of "Surgical Errors and Safeguards" by Dr. Max Thorek. T. H. McKenna assisted by Gilbert Miller and Frank Kettles.

MEDICAL FILM GUILD

New York, N. Y.
Booths 18-19-20

The Medical Film Guild will emphasize its talking papers in this year's program of "MEDICAL FILMS THAT TEACH." Hospital and Medical Society program chairmen, now faced with depleted staffs because of the war emergency, who desire educational material for their meetings, find that Medical Film Guild's motion picture film text books lessens that important problem.

The following films will be shown in the booth of the Guild: Inguinal Herniplasty—Symposium on Suturing Technic, Asphyxia Neonatorum, Non-Operative Treatment of Paranasal Sinusitis, Otitis Media in Pediatrics, A Clinic on Acute Mastoiditis, Otoscopy in the Inflammations, A Clinic on Petrositus with Meningitis, A Clinic on Sigmoid Sinus Thrombosis, Pharmacology of Respiratory Stimulants, Sutures since Lister.

PHILIP MORRIS & COMPANY LTD. INC.

New York, N. Y.
Booth 9

Philip Morris & Company will demonstrate the method by which it was found that Philip Morris Cigarettes (in which diethylene glycol is used as the hygroscopic agent), are less irritating than other cigarettes. Their representative will be present to discuss researches on this subject, and problems on the physiological effects of smoking. Representative L. Ralph E. Hansen.

NOVOCOL MANUFACTURING COMPANY

Brooklyn, N. Y.
Booth 11

This Company states that its efforts are devoted to research and perfection of local and spinal anesthetics only. After years of research the new safer anesthetic MONOCAINE was introduced in 1937.

AMYLCAINE HCL 4% solution used by instillation is said to possess superior qualities over many other ophthalmic anesthetics.

NOVAMUL, used by otolaryngologists, plastic, orthopedic and general surgeons, proctologists and anesthetists is easily loaded into the all-metal, unbreakable, sterilizable syringe. NOVAMPULS offer the surgeon the advantage of direct injection of the sterile anesthetic solution without the need of aspirating the solution from an ampule or bottle. In charge: Dr. Hillard R. Nevin, Morris Kermaier, Nathan Pearson.

OBRIG LABORATORIES, INC.

New York, N. Y.
Booth 41

Contact lenses are being used increasingly to rehabilitate persons who have had corneal injuries. After the war there will be greater need for these devices to help restore vision to men who have received corneal wounds.

The Obrig Laboratories will exhibit contact lenses, gonioscopic lenses, microscopy lenses, tinted lenses, and materials for making impressions of the eyes, as well as the equipment for the fitting of contact lenses.

The all-plastic unbreakable contact lenses are 60 per cent lighter than glass lenses; they are inert and easily adjustable and can be ground and polished to any correction. In charge: Theodore E. Obrig, Philip L. Salvatori.

THE PIONEER RUBBER COMPANY

Willard, Ohio
Booth 12

Rollpruf Surgical Gloves in natural and Synthetic Rubber, Quixams, the short either-hand glove for examinations and Conservors, regular length either-hand glove for surgery, will be featured. In charge: Ken L. Milligan, H. B. Bernstine.

SCHERING CORPORATION

Bloomfield, N. J.
Booth 31

Physicians will be interested in the exhibit of the Schering Corporation which features pure crystalline hormone preparations. Representatives of the corporation will be present to discuss indications and therapeutic application of many Schering hormones such as Progynon, Oreton, Proluton, Pranone, Anteron, Pranturon and Prolactin. Physicians will also have an opportunity to hear about the experimental research now in progress and the encouraging results achieved with sex hormones in certain constitutional disorders previously not considered to be in the realm of endocrine therapy.

The new diagnostic medium for cholecystography, Priodax, will also make its appearance at the Schering booth. This agent is completely different from all other gallbladder media in that it is chemically unrelated to phenolphthalein or its derivatives. Its main attributes are the extremely low incidence of nausea and vomiting, and freedom from severe diarrhea. The cholecystograms obtained have been found to be equal and even superior to those which result from sodium tetra-iodo-phenolphthalein "dye" preparations.

Demonstration of a new and effective technic for the *sublingual* administration of Cortate (desoxycorticosterone acetate) should prove most interesting. This significant advance in oral hormone therapy is achieving recognition in many clinics. Investigators report that sublingual therapy is the simplest, most effective and most economical method of administering the "survival hormone."

In addition to literature dealing with sex hormone preparations, the most recent data on the treatment of rheumatoid arthritis with Solganal-B Oleosum (aurothioglucose) may be obtained. A distinguished gold salt exhibiting maximum efficacy and minimal toxicity, Solganal-B Oleosum provides most favorable results in the treatment of a hitherto intractable condition.

J. R. SIEBRANDT MFG. COMPANY

Kansas City, Mo.
Booth 24

The Goodwin Bone Clamp simplifies the technique for open reduction of long bone fractures. With this Clamp, the bones are easily aligned, and when wiring fractures, the entire operation from drilling holes to the tightening of the wires, is all done with this instrument and a few accessories. The Drill Guide and calibrated lock stem control direction and depth of drilling, indicate diameter of bone, and calculate the correct length of screw to use for applying Bone Plates. See this Clamp, also a complete line of Splints, Fracture Equipment, and Bone Instruments.

SINGER SEWING MACHINE COMPANY

New York, N. Y.
Booths 16-17

Specially trained demonstrators will exhibit the new Singer Surgical Stitching Instrument. This instrument, developed in close cooperation with the surgical profession, has attracted much attention in several recent medical conventions, and clinical trials have demonstrated its success and practicability.

All Doctors, nurses and hospital staff members are invited to see this unique contribution to surgery.

Motion pictures of operations showing the instrument in use will be shown, and free literature describing the instrument in detail will be available. Represented at this Assembly by Mr. J. P. Weis or Mr. L. C. Molloy and demonstrators.

THE TOWER COMPANY, INC.

Seattle, Washington
Booth 22

The Tower Company, manufacturing and research specialists in fracture equipment, presents the latest,—the new Military Mobile Frac-sure Unit. This equipment represents a new and approved approach to fracture treatment designed to meet the particular requirements of the most exacting fracture services. The equipment to be shown meets with the latest specifications of the military fracture services. Several new items of particular interest to the orthopedic surgeons are being exhibited for the first time. Also, on display will be the new Tower Company Mandible Fixation Unit, special

Intertrochanteric Unit, and additional standard fracture equipment. Representatives: Leslie C. Wilkins, Seattle, Wash.; Harold M. Poole, Miss Anne Cowan, New York City.

WHITE LABORATORIES, INC.

Newark, N. J.
Booth 40

White Laboratories, Inc., presents its complete line of ethically promoted, clinically reputable, vitamin preparations. Attention is particularly invited to White's Vitamin A and D Ointment and White's Ophthamol Vitamin A and D Ophthalmic Ointment. Qualified representatives will be in attendance to discuss the use of White's products in vitamin prophylaxis and therapy. Descriptive literature is available for review, and a cordial welcome awaits the physician. In charge: A. F. Custard assisted by Fred Stelling, L. F. duBusc, L. B. Pinkerton and G. P. Reinberg, Export Manager.

WISCONSIN ALUMNI RESEARCH FOUNDATION

Madison, Wisconsin
Booth 29

Of special interest to surgeons visiting our exhibit will be the information on Dicumarol, the new anti-coagulant on which reports on more than 1000 patients have now been received. This drug is administered orally, is low in cost, produces a sustained effect, and has proved highly efficacious in the prevention of post-surgical thrombosis and embolism.

Also featured will be Copper-Iron compounds for pre- and post-operative use in hemoglobin generation; stabilized iodized table salt which retains the iodine content; and various Vitamin D milks and foods prepared through the use of the Steenbock Irradiation Process. C. P. Segard, M.D., of the Foundation's New York office will be in charge of the exhibit.

WALLACE & TIERNAN PRODUCTS, INC.

Belleville, N. J.
Booth 27

Wallace & Tiernan Products, Inc., Belleville, N. J., will show Azochloramid (Chloroazodin U.S.P.), a Council Accepted, effectively bactericidal organic chloramine of low toxicity for the treatment of wound infections. Full-color motion pictures of several interesting surgical technics and procedures including plastic, orthopedic and general surgery will be shown. Visit our booth and register. Our representatives will welcome you.

REGISTRATION

Begins Sunday, June 13, 1943 at 2:00 P.M.
Registration desk will be located in the Silver Corridor Room of the Waldorf-Astoria Hotel
All Delegates, Members of the Committees on Arrangements and all others in the City of New York are requested to register on that date
Everyone expecting to attend the Assembly must register.
Registration fee, $3.00
Men in uniform will not be charged a registration fee
Visting ladies are also asked to register

HOUSE OF DELEGATES

of the International College of Surgeons and of the

UNITED STATES CHAPTER

will meet during the Assembly at the Waldorf-Astoria Hotel
For information see Bulletin Board in College Booth

CONVOCATION

See announcement Bulletin Board College Booth
Waldorf-Astoria Hotel, Tuesday, 5:00 P.M.

TECHNICAL & SCIENTIFIC EXHIBITS

Jade Room and Astor Gallery

MILITARY & REHABILITATION EXHIBITS

East Foyer

MOTION PICTURES

West Foyer

DINNER

Sert Room, Tuesday, June 15, 7:00 P.M.
(Dress Optional)

BOOK REVIEWS

First Aid: Surgical and Medical. By Warren H. Cole, M.D., F.A.C.S., Professor and Head of Department of Surgery, University of Illinois College of Medicine, and Charles B. Puestow, B.S., M.S., M.D., Ph.D., F.A.C.S., Associate Professor of Surgery, University of Illinois College of Medicine. 351 pp., 92 fig. $3. D. Appleton-Century Co., Inc., New York, 1942.

THIS book is written primarily as a text on first aid for the medical student, although it may also be used as a manual for laymen beyond the primary first aid course. Designed for emergency treatment in war, the principles involved are equally applicable to civilian life. Differences are pointed out in civilian and military treatment of emergencies.

The first chapter of the book is set in larger type than the remainder in order to further emphasize the precautions to be taken in, and the limitations of, first aid work. Non-glare paper and large, clear print make this book particularly readable.

A brief, concise chapter on anatomy and physiology offers an excellent background for the discussion of first aid. Various contributors consider such subjects as wounds, shock, blood transfusions, methods of transportation, injuries to the skull and spinal cord, injuries to the large blood vessels, respiratory emergencies and medical emergencies, gas and bomb raids.

This is a practical, well-outlined, clearly written text, amply illustrated by original line-drawings. It can be well recommended to advanced students in first aid, and to the physician who has not practiced first aid procedures.

P. T.

American Surgeon Abroad. By Richard A. Leonardo, M.D., Ch.M., F.I.C.S. $2.50. Froben Press, New York, 1942.

THE author describes in scholarly manner his own pre-war experiences as a student in many European medical centers. He speaks appreciatively of the benefits he derived from his several sojourns abroad, and advises the American doctor to plan for post-war study as a valuable adjunct to his medical training in this country.

One's point of view is broadened by visits to other centers of learning. This book should prove of value to all interested in contemporary surgical activities.

M. T.

Treatment in General Practice. By Harry Beckmann, M.D., Professor of Pharmacology, Marquette University School of Medicine, Milwaukee, Wisconsin. Ed. 4, 1015 pp. W. B. Saunders Co., Philadelphia, 1942.

THE chapters covering sulfonamide therapy and nutrition, the two outstanding therapeutic advances, have been brought up to date.

One of the most helpful chapters is that on "Deficiency Diseases," in which vitamin deficiencies and specific vitamins to be used in their treatment are thoroughly described. One might criticize the emphasis which is placed on synthetic proprietary preparations. Many practitioners prefer to prescribe these vitamins in their natural state and, therefore, would welcome a dietary table listing the vitamin contents of various foods, or such a simple aid as the Daily Food Guide compiled by the National Nutrition Committee.

An extensive and thorough revision of this standard work on treatment encompasses much new material which, however, seems to have been thrown together in haste. Overlapping of subject matter treated by various authors and frequent typographic errors detract from the readability of the volume.

The volume is, however, valuable for reference purposes, due to its comprehensive nature.

S.

Diseases and Injuries of the Larynx: A Textbook for Students and Practitioners. By Chevalier Jackson, M.D., Sc.D., LL.D., F.A.C.S., and Chevalier Jackson, A.B., M.D., M.Sc. (Med.), F.A.C.S. 592 pp., over 200 fig., 11 colored plates. $8. The Macmillan Co., New York, 1942.

A BOOK of practical information on the larynx is this latest edition of the Jacksons' work, based on an extensive clinical experience. Particularly valuable is the authors' experience in industrial and accident surgery, which forms the basis for an excellent chapter on war injuries.

Perhaps the most important omission is that of the use of chemotherapy in treating the wound after a laryngectomy.

The book contains much practical information and should find a place in the library of all laryngologists.

M. T.

Autonomic Regulations: Their Significance for Physiology, Psychology and Neuropsychiatry. By Ernest Gellhorn, M.D., Ph.D. Interscience Publishers, Inc., 373 p., 80 fig. $5.50. New York, 1943.

A THOROUGH discussion is given of the regulations of the autonomic nervous system, based on laboratory investigations by the author and his collaborators, concerning the functioning of the organism under a variety of conditions. The study is made from the point of view of organismic physiology, i.e., under the assumption that the various alterations observed serve a biological purpose and represent adjustment reactions which have been adopted and developed under conditions of stress and strain, during the various stages of phylogenetic evolution.

Since the cortex of the brain is most severely affected by changes in the external and internal milieu, and its faculty of adjustment is minimal, the task of the autonomic system consists in protecting the cortex from harmful alterations of the internal environment by altering circulation and respiration, heat production and heat lost, change in blood volume and erythrocyte content.

Two chapters are dedicated to the autonomic-endocrine and autonomic-somatic integration, with special consideration of the autonomic basis of emotions. Studies of reactions to carbon dioxide excess, anoxia, asphyxia, hemorrhage and hypoglycemia serve not

only as examples of physiological adjustment, but throw important light on pathological processes, especially in neuropsychiatry. Schizophrenic patients exhibit a decreased reactivity of the sympathetico-adrenal system as well as a relative preponderance of the vago-insulin system. It seems that the different methods of treatment of schizophrenia, such as convulsions induced by metrazol, insulin, picritoxin and electrical currents or artificial fever, though profoundly differing in their effects on metabolism, brain circulation and cortical potentials, have one factor in common, namely that they stimulate the sympathetico-adrenal system, and by restoring the disturbed autonomic balance exert far-reaching effects on the cortex itself.

Alexander Haase, M.D.

Military Surgical Manuals (National Research Council) Abdominal Injuries. 131 p. W. B. Saunders Co., Philadelphia, 1942.

THE purpose of the Military Surgical Manuals, according to the preface written by Surgeon General I. C. Magee and E. T. McIntire, is a double one: Surgeons who have specialized in a certain field are to be taught the therapeutic principles in the fields outside of their up-to-date activity. The second aspect is to acquaint the not sufficiently trained physician with surgical indications and technics.

It is difficult to serve both these purposes, the authors have not attempted to do so; they probably figured that every specialist in surgery has or should have a large basic training in general surgery. Since generally surgery practically is tantamount to abdominal surgery a rather thorough knowledge of the pathology and technic in abdominal surgery is expected. The book was not written for the specialist in surgery who is only superficially or not at all acquainted with abdominal surgery. Nor was the book written for the surgically inexperienced physician.

That a treatise serving its purpose was produced with the cooperation of fourteen well-known surgeons of the U.S.A., does not have to be mentioned or proved. Therefore—with regard to the vital importance of this book in the present war—the review is a critique of several details.

Among the subparietal wounds the typical and important tear of the first jejunal loop occurring in accidents of overrunning is not mentioned. The auscultation of the abdomen as a diagnostic means in progressive peritonitis is underestimated.

Among the roentgenologic examinations the information which can be obtained from the radiograph on progressive gas phlegmone in the retroperitoneal space is missing; so is an indication to skin emphysema.

The significance of peritoneoscopy in the diagnosis of visceral perforation in the opinion of the reviewer appears to be overemphasized. One should be warned not to dissect the cartilage in resecting the costal arch for the exposure of the liver surface. If the wound is infected, the well-known chronic suppuration of the cartilage may develop.

The presentation of mortality in relation to the operating time is very instructive.

The assumption that small injuries to the œsophagus frequently are not followed by extravasation of gastric contents may be correct. Contents of the œsophagus, however, are no less infectious, and we may be permitted to question the statement that "they may heal spontaneously."

In a complete separation of the esophagus, the abdominal access may not be satisfactory for an implantation of the end of the esophagus has the tendency to retract into the mediastinum; its end can only be reached through the thoracic cavity.

Among the technics for stoppage of bleeding in bullet wounds of the liver the pulling-through of a lappet of the omentum should be mentioned.

It seems to be too one-sided to mention the "endoaneurysmoraphy or ligations" as the only methods for the treatment of aneurysms of the iliac vessels.

The first of the general principles for the management of the abdomino-thoracic injuries is disputable: bullet injuries of the right side may very well affect other organs besides the liver, even if the bullets are of small caliber: colon, gall bladder, duodenum. Therefore, the statement "active surgical treatment may not be required unless there is evidence of continuing hemorrhage" is open to criticism.

The statement that after the care of the intrapleural injury "the chest often can be closed without drainage" gives the impression that an open drainage may be considered at all.

Figure 47 shows "approaching the posterior subphrenic space for draining abscesses" after resection of the twelfth rib. The rib-resection according to the experience of the reviewer offers no definite advantage. Only the disadvantage that in careless operating in the paravertebral angle the pleura may be injured.

In the chapter on anesthesia, chloroform was not mentioned. Should its application not be considered occasionally when mass operating is necessary?

Injuries of the internal female genital organs, especially the uterus, are not discussed. Regarding the bomb injuries of the civilian population this should be looked upon as a shortcoming of the book.

R. N.

Fundamentals of Immunology. By William C. Boyd, M.D. 446 p., 45 fig. Interscience Publishers, Inc., New York, N. Y., 1943.

THE author has presented the basic concepts of immunology as they are interpreted today. Historical aspects where they definitely further modern knowledge are briefly discussed. The book is divided into chapters dealing with accepted phases of immunology such as antibodies, antigens and antigen-antibody reactions. Special emphasis is given to certain types of antigen-antibody reactions such as the complement fixation test and allergic phenomena. Two chapters of special interest deal with the modern concepts of blood groups, and with laboratory technic in serologic reactions.

The book is remarkable for its brevity, clarity, and comprehensiveness. Although in the main the reader is left with a satisfied feeling of having crystallized certain bits of knowledge gleaned here and there, it must be expected that any comprehensive treatment of so wide a subject, when done briefly, must have certain inaccuracies. This is apparent in many controversial issues touched upon in the chapter on allergy and immunity. A chapter on the "Practical Uses of Artificial Immunity" will be of particular interest to the student and the practitioner.

On the whole, Dr. Boyd has written a book that may be highly recommended for its clear and concise reporting of a subject as diverse as immunology.

I. S. N.

Surgery of Constipation. By Conrado Zuckerman, M.D., Professor of Surgical Pathology in the Faculty of Medicine of Mexico. 189 p., 32 fig. Manuel Leon Sanchez, Mexico, D. F.

THE author believes that in the management and treatment of constipation, the physiotherapeutist and the surgeon have to collaborate with the internist and practicing physician in many cases of chronic constipation.

The cure of such a complaint means the return to efficiency of members of society, as well as the prevention of the development of other ailments (lesions and organic diseases, even cancer). The author has studied the syndrome of constipation for many years and has reached the conclusion that it is the cause of many ailments, and he has observed that medical and physiotherapeutic measures, though scrupulously carried out, have failed of satisfactory results.

With conciseness and clearness, the author lays down the basic knowledge of the anatomy and the physiology of the intestinal tract, with especial reference to the colon, and categorically treats the various lesions underlying the phenomena of acute and chronic constipation in general. After defining his concept of this common disorder he discusses surgical constipation and its treatment.

A comprehensive discussion of intestinal denervation, sensibility and motility of the colon, and of the neurosurgery of constipation and colonic pains is of special interest.

Dr. Zuckermann's observations and the synthesis of his findings, as well as the physical considerations under which he concludes his valuable monograph merit the attention of the general practitioner, the internist and the surgeon.

DESIDERIO ROMAN, M.D.

Clinical Anesthesia. By John S. Lundy, B.A., M.D., Head of the Section on Anesthesia, Mayo Clinic; Professor of Anesthesia, Mayo Foundation for Medical Education and Research, Graduate School, University of Minnesota. 771 pp., 266 fig. $9. W. B. Saunders Co., Philadelphia, 1942.

A REAL encyclopedia of anesthesia has been given to the medical profession by the author, covering the material with which a qualified anesthetist should be familiar, including not only methods used in administering anesthesia, but also criteria for the selection of anesthetic agents and methods. Theories are almost eliminated, and surgeons, as well as anesthetists, will appreciate the book. A wealth of tables is one of the highlights of the book. The author bases his work on 1,200 cases, which are especially instructive.

Regional, endotracheal and intravenous anesthesia are treated particularly well. Postoperative care is given especial attention. Possibly too much space is alloted to the barbiturates and too little to absorption anesthesia. Other information on "Intructions to Physicians, Dentists, Nurses and Assistants," and "Equipment and Drugs Used in Anesthesiology" has been placed in separate chapters.

Venipunctures, intravenous therapy, resuscitations and oxygen therapy are also included.

This valuable book contributes much to the field of anesthesia.

P. T.

The Answer Is—Your Nerves. By Arnold S. Jackson, M.D., with a chapter by the Rev. Edwin O. Kennedy. 197 pp. $2. Kilgore Printing Co., Madison, Wisconsin, 1942.

THE author, who is extremely well qualified by virtue of an excellent preparatory foundation and an active scientific mind, presents a treatise on one of the most important problems confronting the profession, regardless of specialty. These problems, too frequently, are relegated to the unimportant, with a diagnosis of hysteria or neurasthenia. Such action often permits permanent injury to the patient who falls into the hands of the unscrupulous physician or surgeon, who permits the patient to indulge in "isms," is giving material aid to the ever-rising opposition to present-day medical practice.

Many case histories are presented, together with his method of analysis and cooperative treatment with the patient. Because the book is written in simple English and marked clarity, it can be used by the physician as an adjunct to his recommendations. The written word is always given more thought than the spoken word. The presentation is so distinct that the very act of reading produces relaxation which, in itself, has value to both physician and patient.

Aside from its direct value, the following paragraph presents facts to the reader which the profession has spent years in trying to obtain public acceptance. "If people would only stop to consider the years of required preliminary work, followed by hours of daily reading, study and constant practice necessary for the development of a competent physician or surgeon, they would cease trusting their lives, and the lives of those who are dear to them, to the hands of second rate imposters."

The illustrations by Evelyn Lipman are truly American. They over-emphasize to produce their point—a lesson from Hollywood.

Rev. Edwin O. Kennedy, in the chapter on "Religion and Nerves," accepted a grave responsibility on a most sensitive subject. The presentation should prove of great value to the minister who desires to cooperate with the physician in the many cases that require the services of both. Too frequently this phase of medical practice has been neglected.

The book has a definite place in the armamentarium of the busy physician.

B. I. GOLDEN.

When Doctors Are Rationed. By Dwight Anderson, Director Public Relations, Medical Society of the State of New York, and Margaret Baylous, Therapist, Charleston General Hospital, Charleston, West Virginia. 250 pp. $2. Coward-McCann, Inc., New York, 1942.

THE authors state that doctors must be rationed, not only to supply the need for them in military service, but also to provide essential medical care for the civilian population in certain localities which may be left doctorless by the war. Doctors might be assigned to such localities for the "duration." A system for the rationing of doctors is suggested.

The book is written without any prejudicial slant, either toward existing governmental or medical institutions.

The importance of the Departments of Public Health in preventing disease in wartime is pointed out, and the layman is warned against medical frauds and quacks arising from wartime conditions.

J. C. B.

A Surgeon's Fight to Rebuild Men. By Fred H. Albee, F.A.C.S., F.I.C.S., Dutton, 1943.

DOWN in Maine, young Fred Albee's forebears were salt-bitten sea captains. His maternal father, former ship carpenter, became an expert grafter of fruit trees. A neighbor, driving fast horses across the countryside on errands of mercy, inextricably linked, in the boy's mind, medicine and romance.

The special direction his career would take was set when the boy helped Grandfather Houlette perform the homely miracles that made sweet apples grow on sour apple trees. The special tools which he would need to invent—the intricate and ingenious parts of the Albee Bone Mill—were prefigured in the boy's home-made circular zinc saw which sliced only rutabagas. And the self-reliance, the willingness to pioneer, the bent for quick, decisive action which a surgeon must have—the Albee sea captains passed those gifts to their son and the stern simple discipline of a Maine childhood helped to toughen their fiber.

To an extent unusual and enviable in a confused world, the story of Dr. Albee's life has the inevitableness of great art. Everything fits with the precision of one of the Doctor's own bone grafts. That is one reason why this modest and simple record of one man's fight for human wholeness has the dramatic appeal of a good novel as well as the fascination of a scientific record.

The narrative, which only briefly touches the days since our old world's end in 1939, has nevertheless cogent timeliness. One third of the book is given to the period of World War I, in which modern medicine and surgery, pitted against modern mechanized warfare, developed many of those technics and skills which now again become of desperate importance behind the terrible battle lines of World War II.

Dr. Albee's contribution in that war was stupendous. It was a war, he writes, in which 65 per cent of the cases treated, called for surgery of spine and bones and joints. Working in the French hospitals at Ris-Orangis and elsewhere and in the U. S. General Hospital No. 3 at Colonia, N. J., which he organized and directed, Dr. Albee performed countless operations which sent men back into peace-time living with whole limbs, and unmutilated faces. Dr. Albee's work in bone surgery, fortunately for thousands of soldiers in that war, had won wide recognition before war came. Other surgeons were ready to do their share in the work of salvage because Dr. Albee had prepared them. The "use of the bone graft concept," he writes with matter-of-fact succinctness, "saved enough limbs to fill a large building . . . " Dr. Albee saw the closing of General Hospital No. 3, in 1919, not as the end of his work of reconstruction but as the beginning of a new phase of it.

Only 4,000 Americans, he noted, required limb amputations in World War I, but 30,000 industrial workers require such operations annually. He noted too that the automobile was becoming a far more effective instrument of mutilation than the bomb. If it is important to check human waste upon the battlefield in those infrequent holocausts we call war, how much more important to eliminate insofar as possible the human scrap heaps constantly piled up in times of peace. The story of Dr. Albee's work as chairman of the New Jersey State Rehabilitation Commission is the record of a great social and surgical achievement.

There is much more in Dr. Albee's rich and fascinating biography—his efforts to use the fraternity of science to help build international good will between the Americas; his adventures in land and in health in Florida; his current work in the rehabilitation of men rejected in the draft; his prowess as a fisherman—all together, they contribute to the picture of a full and vigorous life, with achievements already attained and many achievements still ahead.

H. V.

Surgical Clinics of North America. August, 1942. Volume 22. Number 4. 298 pp. Cloth $16. Paper $12. Issued serially, every other month (6 consecutive bimonthly numbers). W. B. Saunders Co., Philadelphia, 1942.

AN EXCELLENT symposium on industrial surgery makes this issue of the "Surgical Clinics" particularly valuable to the general practitioner in an industrial neighborhood, as well as to the specialist in industrial surgery.

Authorities in their fields discuss such widely varying topics as the management of craniocerebral injuries, fractures of various parts of the body, chest injuries, hernia in industry, relations of the general physical condition to industrial accidents, disability periods and schedule losses, injuries of the face and shoulder girdle, treatment of infected wounds in compound fractures, burn therapy and fluoroscopy in industrial surgery.

Contributors include Dr. Hart E. Fisher, Chief Surgeon and Medical Director of the Chicago Rapid Transit Company; Dr. Harry E. Mock, Dr. Thomas D. Allen, Dr. Earle H. Thomas, Dr. Nelson J. Howard, Dr. John S. Coulter, Dr. H. W. Orr, Dr. James T. Case, and Dr. Grover C. Penberthy.

P.

Shock: Its Dynamics, Occurrrence and Management,Virgil H. Moon, A.B., M.Sc., M.D., Professor of Pathology, Jefferson Medical College, Philadelphia, 324 p., 36 fig. $4.50. Lea & Febiger, Philadelphia, 1942.

THIS complete study of the condition of shock does much to clarify the mechanism, recognition, occurrence, prevention and treatment of the condition. So much has been done experimentally, and so much has been written on the subject in the last 10 years, that it has been very difficult for most men in the profession to keep up with the voluminous amount of literature which has resulted. This volume has covered that literature quite exhaustively and a handy listing of references will be found between pages 295 and 317. Time has not been wasted by going into too much detail, but rather a clear, concise summary of the contributions has been very well presented. The book has been divided into two parts, the first dealing with the vascular dynamics, and the second exclusively with the practical phases, such as prevention, recognition, diagnosis and treatment of shock. Many interesting photomicrographs are presented, which stress and amplify the points which the author makes. It is an excellent volume dealing with an important subject and can be highly recommended.

P. T.

Advances in Internal Medicine. Volume I. By J. Murray Steele, M.D., Welfare Hospital, New York University Division, Welfare Island, New York. 292 pp. $4.50. Interscience Publishers, New York, 1942.

THIS is the first volume of a series to appear from time to time dealing with important advances in internal medicine, discussed by authorities in various fields. There are seven associate editors and ten contributors to the volume.

Ten papers discuss the use of the Miller-Abbott tube; the use of insulin and protamine insulin in diabetes; sympathetic nervous control of the peripheral vascular system; the sulfonamides and infections of the urinary tract; trends in the study of influenza; hypertension; nephrosis; and riboflavin deficiency.

Each subject has been elaborated sufficiently to be informative, yet it is handled in simple style. Brief summaries at the end of most articles, and bibliographies varying from 25 to 200 references, make this a handy guide to the fields of progress in internal medicine.

MAX THOREK.

The Sexual Glands of the Male. By Oswald Swinney Lowsley, A.B., M.D., F.A.C.S., with collaboration of Frank Hinman, A.B., M.D., F.A.C.S., Donald R. Smith, A.B., M.D., and Robert Gutierrez, A.B., M.D., F.A.C.S. Reprinted from Oxford Loose-Leaf Urology. 746 pp., 59 fig. $10. Oxford University Press, New York, 1942.

THE great advances of the past decade in our knowledge of the male sexual glands are considered at great length in this interesting volume. The prostate, at one time regarded principally as a urinary organ, and now definitely recognized as a sexual gland, is dealt with in the first third of the volume and is considered from every possible angle, beginning with its embryology and ending with the surgery of its pathologic conditions. The interrelationship between the prostate and the testes and the hypophysis, and their hormonal balance, are fully considered.

It is to be expected that considerable attention would be given to the subject of prostatic carcinoma and its treatment. Transurethral resection, which seemed so promising when first introduced, is no longer approved by the author (Lowsley), because the electric current favors the development of necrosis and persistent infection and speeds up the growth of the remaining malignant tissue. He advocates, instead, conservative perineal prostatectomy, followed by radon seed implantation through the perineal incision. Treatment of prostatic carcinoma by orchiectomy, as advocated by Huggins and his associates, is given but a few lines, to the effect that the claims regarding the beneficial results are "in no way exaggerated."

The second part of the work is devoted to an excellent consideration of the testes and epididymes by Frank Hinman and Donald R. Smith.

With his accustomed thoroughness and ability, Gutierrez completes the volume with his interesting contribution on the seminal vesicles, ampullæ, vasa deferentia and spermatic cord.

This book will prove of inestimable value to the surgeon, the general practitioner and the urologist as well. It is difficult to realize the great progress that has taken place in the field of sexual urology until one has read this interesting and instructive work. The distinguished authors and their publishers are to be congratulated on a most valuable addition to the literature on the subject.

A. L. WOLBARST.

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